

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF HIGHER EDUCATION & CULTURAL AFFAIRS

**DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA
UNIVERSITY**

(UWU/CW/Phase II B/NCB/Development of Main Entrance)

BIDDING DOCUMENT

CLIENT

Vice Chancellor,
Uva Wellassa University,
Badulla.

CONSULTANT

Central Engineering Consultancy Bureau,
415, Bauddhaloka Mawatha,
Colombo 07.

August 2018

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INVITATION FOR BIDS

INVITATION FOR BIDS

MINISTRY OF HIGHER EDUCATION & CULTURAL AFFAIRS

DEVELOPMENT OF MAIN ENTRANCE OF

UVA WELLASSA UNIVERSITY

(UWU/CW/Phase II B/NCB/Development of Main Entrance)

1. The Chairman DEPARTMENT PROCUREMENT COMMITTEE on behalf of the UVA WELLASSA UNIVERSITY invites sealed bids from eligible and qualified bidders for **Development of Main Entrance of Uva Wellassa University, Badulla** as described and estimated to cost Rs. 29,804,347.83 (Excluding 15% VAT and Contingencies)
2. Bidding will be conducted through National Competitive Bidding Procedures.
3. To be eligible for contract award, the successful bidder shall not have been blacklisted and shall meet the following requirements.
ICTAD Registration C5 or above
4. Requirements to qualify for contract award include
 - 4.1 Key Technical Personnel at site
 - (a) Technical Officer I – Civil (Full time at site) – NCT or equivalent with minimum 3 years' experience.
 - (b) Site Engineer – Civil (full time) – BSc Engineering (Associate member of the Institute of Engineers in Sri Lanka with 3 years' experience or NDT with 10 years.

(c) Project Manager - Civil (part time) -
Chartered Civil Engineer with 3 years post
Qualifying experience as Contract Manager.

4.2 Financial (a) Annual turnover not less than **Rs. 58 Million**

4.3 Other requirements (a) As specified in the Tender document.

5. Interested bidders may obtain further information from the Engineer Projects of the Uva Wellassa University and inspect the bidding documents at the address given below.

**“Senior Assistant Registrar
Capital Works Division
Uva Wellassa University
Badulla”**

6. A complete set of Bidding Documents in English language may be purchased by interested bidders on the submission of a written application to the Senior Assistant Registrar, Capital Works Division, Uva Wellassa University, Badulla **from 29th of August 2018 until 19th of September 2018 from 09.00 hrs to 15.00 hrs** upon payment of a nonrefundable fee of Rupees Seven Thousand Five Hundred (Rs. 7,500/=) to the Shroff of this University by cash.

7. Bids shall be delivered to the Chairman, University Procurement Committee, Uva Wellassa University, Badulla at **2.00 hrs. on 20th September 2018** or before. Late bids will be rejected. Bids will be opened soon after closing in the presence of the bidders' representatives who choose to attend.

8. Bid validity shall be 91 days from the date for closing of Bids. **(20th December 2018)**

9. All bids shall be accompanied by a "Bid security" (as per the format given in the Bidding Document) of **Rupees Four Hundred Eighty Thousand Only (Rs. 480,000.00)**. Bid Security shall be valid up to **20th January 2019**. Any bid not accompanied by a valid bid Security will be rejected. Bid Security shall be address to the **Vice Chancellor, Uva Wellassa University**.
10. A Pre Bid Meeting will be held in the Committee room of Uva Wellassa University at **10.00 hrs. on 5th September 2018** for bidders to get clarified any obscurities of the Tender Document.
11. Procurement committee reserves the right to accept a suitable bid out of the bids received or reject all bids and the decision of the Procurement Committee is final.

Chairman

Department Procurement Committee

Uva Wellassa University

Badulla.

SECTION - 1

❖ *INSTRUCTIONS TO BIDDERS*

INSTRUCTIONS TO BIDDERS

Instructions to Bidders applicable to this contract shall be those given in Section-I of the Standard Bidding Document, Procurement of Works, and ICTAD Publication No. **ICTAD/SBD/01, Second Edition, January 2007 with addenda issued up to February 2011**, published by the Construction Industry Development Authority (CIDA), "Savsiripaya", 123, Wijerama Mawatha, Colombo 7.

This publication will not be issued with the Bidding Document and the Bidder is advised to purchase it from CIDA.

Instructions to Bidders shall be read in conjunction with the Bidding Data provided under Section-5 of Bidding Document.

Instructions to Bidders will not be a part of the Contract and will cease to have effect once the Contract is signed.

SECTION – 2

- ❖ *STANDARD FORMS (CONTRACT)*
- ❖ *FORM OF LETTER OF ACCEPTANCE*
- ❖ *FORM OF AGREEMENT*
- ❖ *FORM OF PERFORMANCE SECURITY*
- ❖ *FORM OF ADVANCE PAYMENT SECURITY*
- ❖ *FORM OF RETENTION MONEY GUARANTEE*

STANDARD FORMS (CONTRACT)

Notes:

- a) Bidders should submit the completed form of Bid Security (See page 57) in compliance with the requirements of the Bidding Documents.
- b) Bidders should not complete the Form of Agreement at the time of preparation of bids.
- c) The successful bidder will be required to sign the Form of Agreement after the award of contract.
- d) Any corrections or modifications to the accepted bid resulting from arithmetic correction, acceptable deviations or quantity variations in accordance with the requirements of the Bidding Documents should be incorporated into the agreement.
- e) The Form of Performance Security, Form of Advance Payment Security and Form of Retention Money Guarantee should not be completed by the bidders at the time of preparation of bids.

The successful bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.

FORM OF LETTER OF ACCEPTANCE

[letter head paper of the employer]

.....(Date)

To :
.....

(Name and Address of the Contractor)

This is to notify you that your bid dated [insert date] for the construction and remedying defects of the

.....

(name of the contract and Identification No.) for the contract price of

..... *(name of currency)*

.....*(amount in figures and words)* as

correct in accordance with Instructions to Bidders and / or modify by a

Memorandum of Understanding is hereby accepted.

You are hereby instructed to proceed with the execution of the said Works in accordance with the Contract Documents.

The start date shall be *(fill the date as per Conditions of Contract)*

The amount of Performance Security is*(fill the date as per Conditions of*

Contract) The Performance Security shall be submitted on or before

..... *(fill the date as per Conditions of Contract)*

Authorized Signature :

Name and Title of signatory:

.....

.....

Name of Agency:

.....

FORM OF AGREEMENT

This AGREEMENT made the (day)
(month) (year) between
.....
..... (name and address of the employer) (hereinafter called and
referred to as the “Employer”) of the one part, and
.....
.....
..... (name and address of the contractor) (hereinafter called and referred to as “the
Contractor”), of the other part:

WHEREAS the Employer desires that the Contractor execute
..... (name &
identification number of Contract) (hereinafter called and referred to as “the Works”) and the
Employer has accepted the Bid by the Contractor for the execution and completion of
such Works and remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract hereinafter referred to.
2. In consideration of the payments to be made by the Employer to the Contractor as indicated in this agreement, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execute and complete the Works and remedy any defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this agreement to be executed the day and year aforementioned, in accordance with laws of Sri Lanka.

.....
Authorized signature of Contractor

.....
Authorized signature of Employer

COMMON SEAL

COMMON SEAL

In the presence of:

Witnesses:

1. Name and NIC No. :

.....

Signature:

Address:

.....

2. Name and NIC No. :

.....

Signature:

Address:

.....

FORM OF PERFORMANCE SECURITY

(UNCONDITIONAL)

.....
.....
.....

(Issuing Agency's Name and Address of Issuing Branch or Office)

To:

[Name and Address of employer]

Date:

PERFORMANCE GUARANTEE NO.:

We have been informed that

..... *(Name of Contractor)*

(hereinafter called "the Contractor") has entered into Contract No.

..... (Reference No. of the Contract) dated

..... With you, for the

.....

[*name of the contract and brief description of works*] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we
..... (name of the agency)
hereby irrevocably undertake to pay you any sum or sums not exceeding in total
an amount of (amount in figures)
.....
..... (amount in words) upon
receipt by us of your first demand in writing accompanied by a written statement
stating that the Contractor is in breach of its obligation(s) under the Contract,
without your needing to prove or to show grounds for your demand or the sum
specified therein.

This guarantee shall expire, not later than the day of
20..... (insert date, 28 days beyond the intended Completion Date) and any demand for
payment under it must be received by us at this office on or before that date.

.....
Signature(s)

FORM OF ADVANCE PAYMENT SECURITY

.....
.....
.....

(Issuing Agency's Name and Address of Issuing Branch or Office)

To: [Name and Address of employer]

Date:

ADVANCE PAYMENT GUARANTEE NO. :

We have been informed that

..... *(Name of Contractor)*

(hereinafter called "the Contractor") has entered into Contract No.

..... (Reference No. of the Contract) dated

..... With you, for the

.....

[*name of contract & brief description*](hereinafter called "the Contract"). Furthermore,

we understand that, according to the conditions of the Contract, an advance

payment in the sum.....*(amount in*

figures).....

.....

..... *(amount in words)* to be made against an advance payment
guarantee.

At the request of the Contractor, we
..... (name of the agency)
hereby irrevocably undertake to pay you any sum or sums not exceeding in total
an amount of (amount in figures)
.....
..... (amount in words) upon
receipt by us of your first demand in writing accompanied by a written statement
stating that the Contractor is in breach of its obligation in repayment of the
advance payment under the Contract.

The maximum amount of this guarantee shall be progressively reduced by the
amount of the advance payment repaid by the Contractor.

This guarantee shall expire on (insert date, 28 days
beyond the expected expiration Date of the contract)

Consequently, any demand for payment under this guarantee must be received
by us at this office on or before that date.

.....
Signature(s)

FORM OF RETENTION MONEY GUARANTEE

.....
.....
.....

(Issuing Agency's Name and Address of Issuing Branch or Office)

To: [Name and Address of employer]

Date:

RETENTION MONEY GUARANTEE NO. :

We have been informed that

..... (Name of Contractor)

(hereinafter called "the Contractor") has entered into Contract No.

..... (Reference No. of the Contract) dated

.....With you, for the execution of the

.....[name of the

contract & brief description of works](hereinafter called "the Contract"). Furthermore, we

understand that, according to the conditions of the Contract, when the Works

have being taken over and first half of the Retention Money has been certified for

payment, payment of the second half of the Retention Money may be made

against a Retention Money Guarantee.

At the request of the Contractor, we
..... (name of the agency)
hereby irrevocably undertake to pay you any sum or sums not exceeding in total
an amount of (amount in figures)
.....
..... (amount in words) upon
receipt by us of your first demand in writing accompanied by a written statement
stating that the Contractor is in breach of its obligation under the Contract
because the Contractor has not attended to the defects in accordance to the
Contract.

This guarantee shall expire at the latest (insert 28 days
after the end of the defects liability period) consequently, any demand for payment under
this guarantee must be received by us at this office on or before that date.

.....
Signature(s)

SECTION - 3

❖ *CONDITIONS OF CONTRACT*

CONDITIONS OF CONTRACT

Conditions of Contract that will be applicable for this Contract shall be that given in Section 3 of the Standard Bidding Document for Procurement of Works, ICTAD Publication No. **ICTAD/SBD/01, Second Edition, January 2007 with addenda issued up to February 2011**, published by the Institute for Construction Industry Development Authority (CIDA) "Savsiripaya", 123, Wijerama Mawatha, Colombo 07.

The above publication will not be issued with the Bidding Document and Bidder is advised to purchase it from CIDA

This Conditions of Contract shall be read in conjunction with Contract Data in Section 05 in Bidding Document which shall take precedence over the Conditions of Contract.

SECTION - 4

❖ *FORM OF BID*

❖ *QUALIFICATION INFORMATION*

FORM OF BID

Name of Contract: **Development of Main Entrance of Uva Wellassa University,**

To: **The Vice-Chancellor
Uva Wellassa University
Badulla**

Gentleman,

1. Having examined the Standard Bidding Document – Procurement of Works (ICTAD/SBD/01 – Second Edition – January 2007), Specifications, Drawings and Bill of Quantities and addenda for the execution of the above – named Works, we/I the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the aforesaid Condition of Contract, Schedule, Specification, Drawings, Bill of Quantities and addenda for the sum of Sri Lankan Rupees (LKR) or such other sums as may be ascertained in accordance with the said Conditions.
2. We/I acknowledge that the schedule forms part of our Bid.
3. We/I undertake, if our Bid is accepted, to commence the Works as stipulated in the Schedule, and to complete the whole of the Works comprised in the contract within the time stated in the schedule.
4. We/I agree to abide by this bid for the period stated in the Sub-Clause 15 of Instructions to Bidders or any extended period and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. Unless and until a formal agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us/me.
6. We/I understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this day of 2018 in the capacity of duly
authorized to sign tenders for and on behalf of
..... (IN BLOCK CAPITAL)

Signature:

Address:
.....

Witness:

Qualification Information

(It is compulsory for all bidders to provide this information. Failure to provide this information will be considered as an incomplete bid)

ICTAD Registration	
Registration number	<i>(attach copies of relevant pages from the registration book)</i>
Grade	
Specialty	
Expiry Date	
Blacklisted Contractors	
Have you been declared as a defaulted contractor by NPA or any other Agency?	
IF yes provide details	
VAT Registration Number	
Construction Program	<i>(attach as annex)</i>
Legal status	<i>(attach relevant status copies, as annex)</i>
Value of Construction works performed in last 5 years	<i>(attach copies of Certificate of Completion etc. and other documents such as profit-loss and income expenditure)</i>
Year	
Year	
Year	
Year	
Year	
Value of similar works completed in last 10 years (indicate only the three largest projects)	1. Value _____ Year 2. Value _____ Year 3. Value _____ Year <i>(extract of the relevant pages of the ICTAD book should be attached to prove the work experience)</i>
Major items of construction equipment proposed	1. Type _____ Capacity 2. Type _____ Capacity 3. Type _____ Capacity 4. Type _____ Capacity 5. Type _____ Capacity
Qualification and experience of key staff – Site & Head Office (Permanent, Contract basis & Consultants)	Technical: 1. 2. 3.
	Managerial: 1. 2.
Other information requested under ITB Clause 4.1	

- Audited financial statement of the last three years certified by a qualified Auditor and bank facilities should be submitted along with the Tender.
- The Tenderer shall submit documentary evidences as to his current working capital, which should not be less than 30% of the total amount tendered by him. In the event the said working capital is less than 30% the documentary evidence as to the bank overdraft facilities should be submitted by the tenderer with a letter issued by the bank to be addressed to the Vice -Chancellor, Uva Wellassa University, Badulla indicating that the said overdraft facility is specifically for this job.

Signature of the Contractor

Name & Address :.....

Date

SECTION 5

* *BIDDING DATA & CONTRACT DATA*

G. Bidding Data

Instructions to Bidders

Clause Reference

- (1.1) The Employer is
Address: The Vice-Chancellor
Uva Wellassa University
Badulla
- The Works consists of : Development of Main Entrance of
Uva Wellassa University, Badulla
- (1.2) Intended Completion Date is **210** Days from the Start Date.
- (1.3) The office for collection of bid forms is
**"Senior Assistant Registrar
Capital Works Division
Uva Wellassa University
Badulla"**
- The non-refundable fee is Rupees **7,500.00**
The Bid forms will be issued from **29th August 2018 up to 19th September 2018 from 09.00 hrs. to 15.00 hrs.**
- (2.1) The source of funds is **GOSL**
- (4.2) The registration required
Specialty: **Building Construction**

Grade: **C5 and above (ICTAD)**
- (4.3) The following information shall be provided in Section 4:
* ICTAD Registration;

Registration number
Grade
Specialty
Expiry Date

- * VAT Registration number
- * Construction Program
- * Legal Status (Sole proprietor, Partnership, Company etc.)
- * Total monetary value of construction work performed for each of the last five years;
- * Experience in works of a similar nature and size for each of the last ten years;
- * Major items of construction equipment proposed to carry out the Contract;
- * Qualifications and experience of key site management and technical personnel proposed for the Contract;
- * any other.

(4.4)

- * Average of the annual volume of construction work performed in the last five years shall be at least Rs. **58.0 million**
- * Experience in the construction of at least one contract of a nature and complexity equivalent to the Works over the last 10 years (to comply with this requirement, works cited should be at least 70 percent completed)
- * Proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment listed in the Bidding Data clause 4.3;
- * Following technical and managerial Staff:
 - (a) Technical officer I – Civil (Full time at site) – NCT or equivalent with minimum 3 years’ experience.
 - (b) Site Engineer – Civil (full time) – BSc Engineering (Associate member of the Institute of Engineers in Sri Lanka with 3 years’ experience or NDT with 10 years.
 - (c) Project Manager – Civil (Part time) – Chartered Civil Engineer with 3 years post qualifying experience as Contract Manager.

* The minimum amount of liquid assets and/or credit facilities net of other contractual commitments and exclusive of any advance payments which may be made under the contract shall be not less 30% of Tender Sum.

(9.1) Employer's address for the purpose of clarification is ;

Address : **Engineer Projects**

Uva Wellassa University

Badulla

Tel: 055-2226622

Fax: 055-2226633

E-mail: capitalworksuwu@gmail.com

(11.1) The language of the bidding document shall be English

(13.3) VAT component shall not be included in the rates. The amount written in the Form of Bid shall be without VAT.

(13.4) The Contract is subjected to price adjustment in accordance with Clause 47 of the Conditions of Contract.

(15.1) The Bid shall be valid up to **91 days from submission of Bid.**

(16.1) Bid shall include a Bid Security using the form included in Section 9.

(16.2) Bid Security shall be:

- for an amount Rs. **480,000.00**
- Valid until 119 days (Date: 20th January 2019)
- Issued by Bank operated in Sri Lanka approved by the Central Bank of Sri Lanka for acceptance of guaranties using the form for bid security (unconditional guarantee) included in Section 9, Standard Forms.

(17.0) Pre Bid meeting - at Committee Room of Uva Wellassa University
on 5th September 2018 at 10.00 hrs

(19.2) a The Employer's address for the purpose of Bid submission is
The Vice-Chancellor
Uva Wellassa University
Badulla

(19.2) b Contract name: **Develpoment of Main Entrance of Uva**
Wellassa University, Badulla.

Contract no. **UWU/CW/Phase II B/NCB/ Development of Main Entrance**

The deadline for submission of Bids shall be **2.00pm hrs on 20th September 2018**

(34.0) The amount of Performance Security is **5% of the Initial Contract Price.**

(36.0) The Adjudicator shall be appointed by the consent of both parties.

"The Adjudicator proposed by the Employer is

.....

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case to case basis and shall be shared by the Contractor and the Employer. 50% by the employer & 50% by the contractor.

Contract Data

(Please note that the Clause nos. given hereunder are that of Conditions of Contract)

(1.1) The Employer is

Address: **The Vice-Chancellor
Uva Wellassa University
Badulla**

Name of Authorized Representative: _____

(1.1) The Engineer is

Address: **Engineer Projects
Uva Wellassa University
Badulla**

Name of Engineer's Representative:
.....

(1.1) The Works consists of **Development of Main Entrance of Uva Wellassa University, Badulla**

The Site is located at, **Uva Wellassa University.**

(1.1) The Start Date shall be **14 Days** from the Letter of Acceptance.

(2.3) The following documents also form part of the Contract:

1. Day works Schedule 1 - Labour
2. Day Works Schedule 2 - Materials
3. Day Works Schedule 3 - Plant

(8.1) Schedule of other contractors: **None**

(9.1) Schedule of Key Personnel:

Minimum persons with qualifications and experience to be defined,

Technical

(a) Technical officer I – Civil (Full time at site) – NCT or equivalent with minimum 3 years' experience.

(b) Site Engineer – Civil (full time) – BSc Engineering (Associate member of the Institute of Engineers in Sri Lanka with 3 years' experience or NDT with 10 years.

(c) Project Manager – Civil (Part time) – Chartered Civil Engineer with 3 years post qualifying experience as Contract Manager.

Attendance certified by the Engineers' Representative shall be attached to Interim Claims. If the Contractor fails to employ such personnel, the above mentioned payment in respect of each person shall be deducted from payment due to the Contractor. And also the work shall be suspended till the required staff is employed.

(13.1) The minimum insurance covers shall be:

- (a) • The minimum cover for insurance of the Works and of Plant and Materials is **110% of initial Contract Price**
 - The maximum deductible for insurance of the Works and of Plant and Materials is **5% of initial Contract Price**
- (b) • The minimum cover for loss or damage to Equipment is **5% of initial contract price.**
 - The maximum deductible for insurance of Equipment is **Nil**
- (c) • The minimum cover for insurance of other property (other than the Site) is **Rs. 1,000,000.00**
- (d) The minimum cover for personal injury or death,
 - for third party and employees of the Employer and other persons engaged by the Employer in the Works is **Rs. 1,000,000.00** per event

(13.2)

- (a) The minimum cover for personal injury or death,
 - for the Contractor's workmen is **Rs. 1,000,000.00** per event
 - Contractor's employees other than workmen is **Rs. 1,000,000.00** per event

- (17.1) The Intended Completion Date for the whole of Works shall be **303** days from Order of Commence
- (21.1) The Site Possession Date shall be **14 Days** from Letter of Acceptance
- (27.1) The Contractor shall submit a detailed construction program for the Works within **7 Days** of delivery of the Letter of Acceptance.
- (27.3) The period between Program update is Monthly
- (27.4) The amount to be withheld for late submission of a Detailed Construction Program is **2% of Initial Contract Price**
- (35.1) The Defects Liability Period is **365** Days.
- (47.1) The Contract Price is subjected to price adjustment
- (48.1) The retention from each payment shall be **10%** of the certified work done.
The limit of retention shall be **5%** of the Initial Contract Price.
- (49.1) The liquidated damages for the whole of the Works shall be **0.05% per Day**.
- (50.1) The maximum amount of liquidated damages for the whole of the Works shall be **10 %** of the Initial Contract Price
- (52.1) The Performance Security shall be **5 %** of the Initial Contract Price.
- (58.1) Schedule of operating and maintenance manuals shall be submitted during handing over the Work.
- (60.1) The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is **25% of Initial Contract Price**.

Additional Clause

DAY WORK SCHEDULE - LABOUR

Any labour engaged on Day work shall be paid at the rates given below. Day work rates quoted below shall also cover all the expenses of the contractor and particularly his supervision, repairing and maintaining the tools necessary to each class of workman. Contractor's profit and overheads should not be included in the rates.

Category	Gross Daily Wages	
	Rs	Cts
1. Skilled labour	1,850.00	
2. Semi-skilled labour	1,600.00	
3. Unskilled labour	1,325.00	

Add: Overhead & Profits 20 % to above

SECTION 6

❖ *SPECIFICATIONS*

SPECIFICATIONS

For drafting specifications, the Employers are advised to use the following standard specifications published by ICTAD.

- SCA/4 - Building Works (Vol.I)
- SCA/4/II - Building Works (Vol.II)
- SCA/3/2 - Water Supply Sewerage and Storm Water
- SCA/8 - Electrical and Mechanical Works

SPECIFICATIONS FOR GENERAL REQUIREMENTS & CIVIL WORKS

1.0 GENERAL

This specification shall be read in conjunction with the other documents, which form the Contract Agreement for the Works. Notwithstanding the subdivision of the specification under different headings each and every part of it shall be deemed supplementary to and complementary every other part thereof.

All materials and workmanship shall be in accordance with the appropriate current Sri Lankan Standards or where such standards are not available the relevant British Standards shall be applicable. Where such standards are in conflict with this specification the interpretation in accordance to this specification shall prevail.

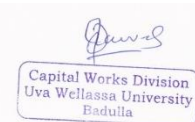
1.1 Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted subject to the Engineer's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Engineer at least 14 days prior to the date when the Contractor desires the Engineer's consent. In the event the Engineer determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

1.2 Definitions

In this specification the terms 'approved', 'approval' and 'required' mean 'approved by the Engineer', 'approval of the Engineer' and 'required by the Engineer' respectively.

1.3 Scope of Work



The works to be executed under this Contract comprise the following.

- (a) The provision at site of all necessary labour, materials plant & equipment, tools instruments etc. together with personnel of all types of skills for the mobilization execution with supervision demobilization and removal of plant tools etc. and other resources provided by the Contractor there from.
- (b) The execution of all necessary surveys for the setting out of building and for required completion of works.
- (c) The maintenance of proper site records, preparation and submission of calculations. Drawings progress reports etc. to the Engineer as required under this Contract Agreement.
- (d) Complete the construction works including all temporary works in accordance to the requirements under this Contract Agreement and as required by the Engineer.
- (e) The testing of required tests in accordance to the specifications therein and as directed by the Engineer.
- (f) All other works associated with the above for the completion of the Works as specified in contract.

1.4 Site Security

The Contractor shall provide all necessary fencing, hoardings, watching and lighting for the security of site and safeguarding the Works. The shelters, guard house and other facilities to be provided for the watchmen to do their duty in an efficient manner. Altering, shifting and adapting same from time to time shall also be the responsibilities of the Contractor. All costs in connection with this shall be borne by the Contractor.

1.5 Advertisement

The Contractor shall allow no advertisement to be placed on any hoarding, scaffolding or fencing erected in connection with the Works without the permission of the Engineer.

1.6 Temporary Works

The Contractor shall submit to the Engineer details, particulars, drawings etc., of all temporary works necessary for the Works for latter's information. The Engineer reserves the right to call for technical justification of the Contractor's proposals and to order any necessary modifications. But the Contractor shall be solely responsible for the stability and safety of all temporary works and for the quality of the permanent works resulting from the Temporary Works eventually adopted.

1.7 Temporary Services

The Contractor shall provide and maintain temporary services necessary for the execution of the Works under the Contract shall make applications and install such services in accordance with the regulations and requirements of the relevant authorities.

The Contractor shall be responsible for all costs and charges in connection with the installation, alteration, shifting, adopting use and maintenance of such services. On completion of the Works, the Contractor shall disconnect such service, which are no longer required by him and or the Employer and clear away all traces.

(a) Power

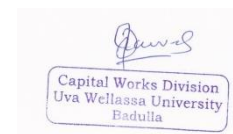
The Contractor shall apply and pay for the required power and install temporary electrical installation for the Works, Site Office, Engineer's and Consultants Offices, Stores, Labour Huts, Yards and Site lighting and testing for mechanical and electrical services done by others.

A stand-by generator, with adequate capacity should be made available by the Contractor at the site for use in an emergency, if any intention to work during night time and or during power failures. The cost of supplying, installing, running and maintaining of the stand-by generator shall be borne by the Contractor.

(b) Water

The Contractor shall apply and pay for the continuation of temporary water supply connection to the site and construct storage tanks with adequate capacity, together with the necessary internal temporary PVC distribution system including an overhead tank at an adequate elevation, water pumps as may be required and providing taps, valves, etc. in order to provide water for the Works, for drinking purposes, and also for washing, bathing and sanitary facilities required by the Contractor's workmen, the Employer, the Engineer's staff.

Water Bowsers with adequate capacity should be made available in order to bring water to the site from outside and to pump into the storage tanks in an emergency and/or during water cuts and all costs in connection therewith shall be borne by the Contractor.



1.8 Equipment

If Engineer needs to set the Telephone calls, Photocopies & Printing of Documents related to contract. The contractor shall provide such services cost should be borne by the contractor.

1.9 Flammable stores

All petroleum, explosives and flammable materials shall be stored in fireproof buildings and such precautions taken with regard to sitting and fire risks as the Engineer may direct. The Contractor shall make all arrangements with the licensing authority for the necessary license.

1.10 Safety on Site

Safety precautions throughout the construction operations shall comply with all relevant state statute, ordinance, decree, or other law or decree or any regulation or byelaw of any local or duly constituted authority applicable within the country at that time.

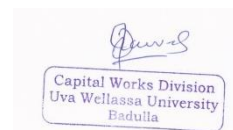
The Contractor shall provide and maintain the following safety measures in accordance with the regulations and requirements stipulated by the relevant Statutory Authorities.

- i. Safe working conditions
- ii. Safe means of access and exit
- iii. Safety systems for Plant, Machinery and Equipment
- iv. Appropriate safety equipment required at the site and yards such as Helmets, Gum Boots, gloves, eye protectors, Masks, Welding Masks, Safety Belts, etc. to the workmen and others engaged in the Works.
- v. Safety nets, safety canopies, safety signs, handrails, guardrails, platforms and other measures ensuring safety of workmen and others engaged in the Works.
- vi. Training, instructions, information and supervision as may be required to enable employees to avoid any potential dangers and hazards.
- vii. All measures ensuring the health and workmen including satisfactory welfare facilities, working conditions and environment.

Safety signs should be in the Sinhala, Tamil and English languages.

1.11 Sources of supply

The Contractor shall have obtained from the Engineer approval of sources of supply of his materials and shall not change his sources without prior approval.



All material that shall be rejected shall be promptly removed from site.

1.12 Soil Conditions

1.12.1 Unexpected ground conditions

The Contractor shall report immediately to the Engineer any circumstance, which indicates that in the Contractor's opinion the ground conditions differ from those expected by him from his interpretation of the site investigation reports.

1.13 Setting out

All the dimensions given in the drawings should be checked at the site by the Contractor prior to commencing all work. In the event of any discrepancies the Contractor shall inform the Engineer and request well in advance and prior to commencing work. Setting out shall be carried out from the main grid lines of the proposed structure. The Contractor shall employ a suitable responsible officer for site setting out works in accordance with the drawings.

The Contractor shall set out and check all column centers and floor levels and carry out such other surveys as may be necessary to establish accurately the placing of forms and all other basic structural works and setting out in both vertical and longitudinal directions. All survey marks and pegs shall be clearly identifiable with accurate records kept onsite by the Contractor that must be related to Bench Marks. In this regard Contractor must maintain accurate survey instruments at the sites at all times for any checking of level that the Engineer or his representative may desire.



SECTION 7

❖ *BILL OF QUANTITIES*



PREAMBLE TO THE BILL OF QUANTITIES

1. This Bill of Quantities is prepared in accordance with the standard specifications given in Section-6 and shall be read in conjunction with all documents, which comprise the contract.

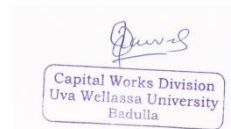
2. The cost of complying with all conditions, obligation and liabilities described in the Conditions of Contract, Specifications and the Bill of Quantities including all overhead charges and profit in carrying out the work as shown on the Drawings shall be deemed to be spread over and included in the prices of sums stated by the Bidder in the bill of Quantities unless separately measured.

3. If the bidder fails to price any item in the Bill of Quantities then the cost of the work under such item shall be held to be spread over and included in the prices given against other items of work.

4. The quantities set out in the Bill of Quantities are provisional and cover the approximate scope of the work anticipated to be performed by the Contractor. The actual quantities will be determined by the Engineer by measurement of the work completed by the Contractor.

5. The following abbreviations are used in the Bill of Quantities.

L.S.	- Lump Sum
P.S.	- Provisional Sum
m	- Metre
m ²	- Square metre
kg	- kilogram
No	- Numbers
Rs. Cts.	- Sri Lankan Rupees and Cents
m ³	- Cubic metre
ton	- Metric ton



6. When trade names, brands and or Catalogue numbers are referred to, sole preference to any material or equipment is not intended. Any other material or equipment may be used, provided that the characteristics of type, quality, appearance, finish, method of construction and/or performance is superior than specified.
7. Whenever the method of measurement is not clear from the discount available, the principles as given in the Sri Lanka Standard 573, Method of Measurements Building Works shall be applicable.

GENERAL

It is the tenderer's responsibility to see that the prices include for complying with all the requirements of the other documents whether specifically referred to in Bill of Quantities.

The Tenderer is advised to visit the site of the proposed work and it is the responsibility of the Tenderer to ascertain the conditions governing access to the site, the extent of working space storage area etc.

The rate for each item shall also include for all the following.

1. Labour and all connected cost.
2. Materials and goods including all connected cost.
3. Complying with regulations of the Municipal Council and/or any other relevant authority under which particular item of work is to be executed unless otherwise included in the preliminaries.
4. Plant and equipment unless and otherwise included in preliminaries.
5. Protecting and clearing.
6. In addition to above, the rate for item of work in substructure shall include for the works at depth extending below ground water table where applicable including excavation under water, removal and disposal of mud, stand and preparation of place to a condition suitable for proper execution of the work.

7. Establishment charges and overheads (not included in preliminaries or anywhere in the Bill of Quantities) and Profits.

EXCAVATION

All works under this section are measured net and no working space is allowed.

Rates shall include for;

- a) Levelling bottom of trenches and sides plumbs.
- b) Back filling with selected excavated material and consolidating.
- c) Planking and strutting if required.
- d) Disposal of surplus soil and keeping all excavation free from water.
- e) Existing ground levels shown in the drawings have been taken at the surface of the ground, with no particular differentiation to indicate buried foundations, paving etc.

CONCRETE

Unless otherwise specified all concrete in Slabs, Beams & Walls shall be Grade-C25 Ready mixed concrete.

Unless otherwise specified all concrete shall be Grade-C25. All concrete shall be dense with a vibrator. All concrete shall be so cast as to receive only that finishing on its exposed surfaces as specified in the respective item, unless otherwise specified in the items all formwork and reinforced measured separately.

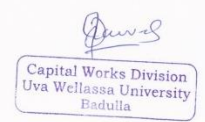
Rates for concrete work shall include for: -

1. Mixing as per specification, depositing, handling, hoisting and placing at any height or depth.
2. Packing and tampering around steel reinforcement including vibrating.
3. Contractor's designed kickers, construction joints and sealants.
4. Curing and making good after removing formwork etc.

Form Work

Rate shall include for: -

All necessary boarding, supporting, erecting, framing, cutting angles, skirting or removal, cleaning, wetting and treating before placing concrete.



Formwork is measured as the net contact surface measurement between concrete and formwork plywood or other type of shuttering to produce fair faced concrete finish. Formwork including class II timber joints and necessary props (Rates to include for removal)

Reinforcements

Rate shall include for:

Cutting, bending, fabricating placing in position, holding and supporting including temporary fixing supports hangers space bars, cover blocks, chairs, laps, binding wires and waste.

High yield steel and mild steel bars use for construction.

Reinforcements as per B.S. 4449 or 4461 having minimum characteristic strength of 460N/mm² for high yield steel & 250 N/mm² for mild steel.

MASONRY WORK

Rates to include for joggles, craps, dowels, ties, templates, rough and fair cutting, forming splays, angles, reveals, & pointing, including hoisting not exceeding 6m above ground level.

BRICKWORK

Brick should be of superior quality subject to minimum strength 4.8 N/mm² and blocks should be 2.8 N/mm² approved by the Engineer.

Rate to include for all rough and fair cutting, plumbing angles, forming, rebated reveals, rough arches raking out joints for painting, plastering etc. cutting chases, making good and sundry items of that nature.

ROOFING

Rate shall include for

All shops fabrications hoisting and fixing complete with Screws, clips etc;

All straight and square cutting waste.

The sheet shall be free from visible defects which may impair the appearance of serviceability. The sheets shall be of uniform texture, smooth on one side, rectangular in

shape and all edges shall be neatly cut, formed and trimmed. The corrugation shall be true and regular.

Structural Steel Work

Rate shall include for;

All shop fabrication work, including cutting, drilling bolting, reverting, welding, grinding, delivering, unloading, hoisting, erecting and fixing.

Structural Steel strength should be PY 275 N/mm².

JOINERY

Sizes of all timber given are finished sizes.

All timber shall be well seasoned and treated against insect and termite attack.

Timber used for joinery works shall be well seasoned well treated and in one species of special class timber recommended for the particular class of joinery works as specified in the specification.

Rates for joinery

Any type of cutting required, sawing notching, drilling, trimming, planning, forming and jointing and the like, fixing in position, completion with nails, spikes, plugs, screws and gluing and priming to joints and ends.

Painting rebates of frames before fixing of glass

Rate to include for heavy quality door lock, hinges & all other accessories.

PLASTERING

Rate shall include for all temporary rules screed, ground etc. for raking out joints of new brick work or backing new concrete for key internal and coved angles, joints between new and old plastering arises inter sections between curved or irregular surface etc., and all making good around pipes sanitary fittings and similar fixtures.

Rates for ceiling lining shall include for the following

- i. Working to sides and soffits of attached or isolated beams and soffit of staircases.
- ii. Straight, raking & circular cutting.

PAVING

Rate shall include for:

All temporary rules, screeds, grounds etc. all normal cutting arises, rounded angles and edges and the like, bedding and pointing making good between difference surfaces and between new and old work, making good around pipes, sanitary fittings, and other fixtures cleaning and protecting upon completion.

Wall tile finishing

- (b) Glazed wall tiles 200mmx300mm of approved colour and quality laid to internal wall in toilets set in 12mm thick cement and sand 1:3 backing with neat cement floating and joint pointed with coloured grout to match tile neatly as directed.

Floor tile finishing

- (a) Ceramic non-skid 200x200mm & 300x300mm homogeneous floor tiles of approved colour and quality laid on 12mm thick cement and sand 1:3 bedding with neat cement floating and joint pointed with coloured grout to match tiles neatly as directed.

ALUMINIUM WORKS

Rate shall include for

All Aluminium sections shall be Natural aluminium alloy sections with anodizing thickness not less than 10 -15 Microns

Glazing shall have 5mm thick clear float glass for windows & 6mm thick clear glass for doors.

Frame and/or sash sections shall be of 6063-T5 aluminium alloy having a nominal thickness of 1.575mm + 0.15mm

In glazed paneled partitions top panel shall be 6mm clear glass and bottom panel shall be PVC coated laminated plywood board (750mm height)

PAINTING

Rate shall include for:

Preparation of surfaces cleaning down, smoothing, knotting, stopping etc. protection of floors and fittings removing and replacing doors and windows furniture and cleaning, windows etc upon completion.

Steel Works

All galvanized steel works painting shall be one coat of etching primer and two coats of enamel paint.

PLUMBER

Rate for all pipes shall include for screws, nails, pipe brackets, jointing materials etc. and all hole chasing in the walls and making good in all trades and all necessary excavation and back filling unless otherwise specified separately in the Bill of Quantities.

Any special water supply and drainage fittings such as Bends, tees, sockets, reducers etc. unless otherwise specified separately in the Bill of Quantities shall be deemed to have been included in the relevant items and should accordingly be rated to include for such special etc. and for any minor extra works involved in the completion of such items. All “U” P.V.C. pipe for water supply should be of type 1000 and all waste water (drainage) and Sewerage pipes should be of Type 600.

Rate for all pipes shall include for pressure testing as specified and pipe work should not be covered up before pressure testing.

Ceramic Fittings and Accessories

Unless otherwise specified, all fittings should be approved quality.

All fittings should be “white” colour unless otherwise specified.

Fittings such as taps, waste water outlet, flushing cistern, internal overflows and the like and supporting brackets, incidental materials for fixing.

Assembling, jointing together fixing components parts and jointing to pipes including necessary coupling and for leaving perfectly clean undamaged and in perfect working order as on completion.

Jointing and or connecting pipes to sanitary fittings.

ELECTRICAL INSTALLATION

Rates in Bill of Quantities shall include all necessary materials Cables, conduits, PVC sunk box, bulbs, switches etc. and labour required to complete the electrical installation to good working order.

Except where specifically stated, all costs associated with provision of all holes, opening, chases, ducts and other builders' work required for installation and make them good, shall be included in the rates.

Where reference is made to certain manufacturers' products and items identified by registered trademarks, this has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer.

Testing and commissioning of the electrical installation is to be carried out by the contractor and inspection report submitted according to the requirements of the power supply Authority. Cost of such testing and report to be included in the rates, as built electrical drawing to be submitted.

All type of fittings, materials, painting and finishes shall be approved by the Engineer prior To installation.

Electrical items (MCB, RCCB, RCBO etc) without an accredited agent in Sri Lanka shall not be accepted and guarantee cards (only for Fans) should be provided from Accredited agent when necessary.

QUALITY OF MATERIALS & GENERAL STANDARD OF WORK

All materials used in the work, shall be the best quality of their respective kinds as specified in this Particular Specification or in the standard ICTAD specifications, shall be obtained from services and suppliers approved by the Engineer and shall comply strictly with the test prescribed herein or in the standard ICTAD specification. When such specifications or tests are not laid down in the said specifications, these shall comply with the latest issue of the relevant British Standards or other Standards approved by the Engineer.

Where trade names, brands and/or catalogue numbers are referred to, sole preference for any manufacturer is not intended. Similar items may be used provided they are equivalent and provided the characteristics of type, quality, appearance, finish, method

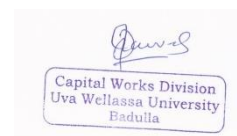
of construction and/or performance are not less than specified and provided also that the approval is first obtained from the Engineer.

Unless otherwise stated, the cost of all tests required by this specification or the relevant British or other approved Standards shall be deemed to be included in the contract sum and rates.

Test Certificates covering all materials for which Certificates are required and are supplied for the Works shall be submitted to the Engineer for approval.

No materials shall be used in the Works unless they have first been approved by the Engineer.

No approval by the Engineer of materials inspected by him or acceptance by the Engineer of Certificates of Tests in lieu of inspection shall vitiate the right of the Engineer to reject after delivery to site or incorporation in the works, material found to be unsuitable or not in accordance with this specification.



**BILL OF QUANTITIES FOR DEVELOPMENT OF MAIN
ENTRANCE OF UVA WELLASSA UNIVERSITY, BADULLA**

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY
BILL OF QUANTITY

GRAND SUMMARY

Bill No	DESCRIPTION	AMOUNT	
		Rs	Cts
1	PRELIMINARIES		
2	LAND PREPARATION		
	GATE 01		
3	GATE 01 & ASSOCIATE STRUCTURES —		
4	CHANGING ROOMS —		
	GATE 02		
5	LEFT WING —		
	Sub Total - I		
	Less Provisional Sums		
		(1,468,000.00)	
	Sub Total - II		
	Less Discount If Any		
	Sub Total - III		
	Add Provisional Sums		
		1,468,000.00	
	Total Sum Carried to Form of Bid (Sub Total - IV)		
	Add 15% VAT		
	Grand Total (Inclusive of VAT)		

Total tender sum(Excluding VAT) in words:-Rupees.....

.....

.....only.

Tenderer's VAT Registration Number :-.....

.....

Signature of Tenderer

Date :-.....

Name & Address of Tenderer

.....

.....

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY

BILL OF QUANTITY


BILL NO 01 - PRELIMINARIES

Note:


- 1 The Engineer/ Consultant may modify or amended any item , or delete inappropriate item/s or add new item/s , depending on the nature of the proposed work.
- 2 The below recommended percentage may be adjusted by the Employer/Consultant to suit the particular project.
- 3 The tenderer is advised to visit the site of the proposed work, as it is his responsibility to ascertain the conditions ,governing access to the site, external working space, storage area, status of the adjoining properties etc.
- 4 Mode of payment are as below.
- 5 Any other preliminary items not listed below but deemed to be included in the tender rates.

Mode of Payment	Category
Reimbursement of actual cost on submission of the relevant document acceptable to the Engineer plus 5% of the actual cost of obtaining the insurance policies and Securities.	A
60% on completion of temporary buildings or structures. 30% in equal installments over the contract period and balance 10% on dismantling and removal on completion.	C
Paid on satisfactory completion of the item	D
In equal installments over the contract period.	E
Mode of payment to be mutually agreed between contractor and the employer at the commencement of contract in relation to the program of work.	F
On the completion of work	G

Item	Description	Mode of payment	Unit	Amount	
				Rs.	Cts.
	<u>A - PRELIMINARIES</u>				
	- <u>Insurance, bonds & guarantees</u>				
1A1	Allow Provisional sum for insurance of works, Machinery and Equipment, Plant, materials, third party persons and properties and Employer's personnel and property at site as per the contract.	A	P.S	45,000.00	
1A2	Allow Provisional sum for Insurance against accidents and injury to contractor's personnel.	A	P.S	45,000.00	
1A3	Provisional Sum for Providing a Performance Security.	A	P.S	23,000.00	
1A4	Provisional Sum for Providing a Advance Payment Security.	A	P.S	95,000.00	
	<u>Engineer's Facilities</u>				
1A5	- Allow lump sum to provide and maintain Engineer's on site office, with sanitary, water, electricity, telephone facilities and office furniture as required	C	Item		
	<u>Contractors Facility</u>				
1A6	- Allow lump sum for cost of construction and maintenance of contractor's office & sanitary facilities for contractor's staffs and workmen at the site during the contract period and demolition and removal on practical completion.	C	Item		
1A7	- Allow lump sum for surveying and setting out of works.	D	Item		
1A8	Provide service & maintaining for contractors site office (getting Telephone, Electricity & water supply connection and fax & email).	D	Item		


 Capital Works Division
 Uva Wellassa University
 Badulla

1A9	Allow lump sum for giving notices, obtaining permits & payment of fee in compliance with the requirements of government, local authority or other public authority.	E	Item	
	<u>Security & Protection</u>			
1A10	Provide lump sum for security services for protecting safe guarding the works, materials and plants against trespass or until hand over the site.	E	Item	
1A11	Allow lump sum for construct temporary fence using corrugated GI sheets to a height of 2.1m with timber/ GI pipe or angle iron frame around the site and removal on completion	E	Item	
	<u>Quality, Standards and Progress</u>			
1A12	Allow lump sum for supplying specimens, samples of material and approval by the engineer.	E	Item	
1A13	Allow lump sum for submission of 03 sets of as built drawings.	D	Item	
1A14	Allow lump sum for providing of progress charts, schedule, shop drawings etc.	E	Item	
	<u>Health, Safety & Environment</u>			
1A15	Allow lump sum for providing and maintaining a first aid box supply of medicine, linen etc.	E	Item	
1A16	Allow lump sum for providing safety measures (helmet, shoes, safety nets & belts etc).	E	Item	
1A17	Allow lump sum for removal of all temporary works, rubbish and debris and cleaning up site on completion, leaving all in good order and handling over.	G	Item	
	Sub Total Bill No 01 carried to Grand summary			


 Capital Works Division
 Uva Wellassa University
 Badulla

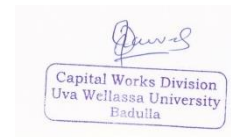
DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY

BILL OF QUANTITY

BILL NO 02 - LAND PREPARATION

Item	Description	Unit	Qty.	Rate		Amount	
				Rs.	Cts.	Rs.	Cts.
2A1	Clearing the entire land & removing bushes	m ²	450				
2A2	Cutting & removing trees (approximate girth~ 0.45- 1.35m) and excavating tree roots and disposal of debris away from the site. Rate to include for back filling pits with available earth.	nr	10				
2A3	Demolishing of existing single storied security huts (approx. area~ 5m ²) & removing whole building including complete foundation materials such as concrete, rubble, bricks etc. Item to be included Stacking serviceable materials & returned to the client & removing debris away from the premises (within 5km) as directed by the Engineer.	Item			Allow		
2A4	Demolishing of existing random rubble masonry retaining wall (approximate length 4m, height- 3m) and Stacking serviceable & debris cleared away from the site.	Item			Allow		
2A5	Demolishing of existing drain with cover slabs (approximate length ~ 24m) and debris cleared away from the site.	Item			Allow		
	Earth work						
	<i>The quantities given in the BOQ are provisional quantities and shall not to be considered as exact quantities of the works under the Contract. The Contractor shall determine actual quantity based on the Specifications and the Drawings issued under the Contract Agreement.</i>						

2A6	Excavation in common earth to develop the land and dispose within the site. (Approximate haulage distance ~ 5.0km)	m ³	100		
2A7	Filling with available soil including spreading, watering and compacting in 150mm layers using vibrating roller/plate compactor (Compaction not less than 95% of proctor dry density)	m ³	100		
	Sub Total Bill No 02 carried to Grand summary				



DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY
BILL OF QUANTITY

BILL NO 03 - GATE 01

(Approximate floor area~ 1,010.00 ft²)

SUB SUMMARY

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
3	<u>SUBSTRUCTURE</u>		
3B	EXCAVATION		
3C	CONCRETE		
3D	RANDOM RUBBLE MASONRY		
3E	PLASTERING		
	<u>SUPERSTRUCTURE</u>		
3F	CONCRETE		
3G	BRICK WORK		
3H	WATER PROOFING		
3J	WALL FINISHES		
3K	FLOOR FINISHES		
3L	CEILING FINISHES		
3M	PAINTING		
3N	DOORS & WINDOWS		
3P	ROOF COVERING & ROOF PLUMBING		
3S	MISCELLANEOUS		
3T	ELECTRICAL INSTALLATION		
	SUB TOTAL OF BILL NO: 03 CARRIED TO GRAND SUMMARY		

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY
BILL OF QUANTITY

BILL NO. 03 - GATE 01

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<u>SUBSTRUCTURE</u>				
	3B - EXCAVATION AND EARTH WORK				
	<i>As excavation measured net unless otherwise specified in item description.</i>	Note			
	<i>Excavation shall be done as instructed by the Engineer and with close supervision of the Engineer's representative. Foundation depth may have varied according to site condition.</i>	Note			
	<u>Rate include unless otherwise stated</u>				
	<i>Trimming sides, keeping clean and consolidating bottom of bases and trenches etc. levelling and consolidation where required. leveling and compacting where required under slabs or sub floor layers. Cost of Dewatering should also be included into the rates</i>	Note			
	<i>Back filling with selected excavated materials from site as specified and directed.</i>	Note			
	<u>Any necessary additional excavation for working space, planking and strutting, shoring or any other form of supporting earth, formwork etc.</u>	Note			
	Excavation				
3B1	Excavation for wall ,column foundation to a depth not exceeding 1.5m in any material except rock requiring blasting, part return fill in and rammed and surplus spreading within the site as directed.	m ³	45		
	Filling				

3B2	Supplying and filling under floors with available approved filling material approved by the Engineer including spreading, watering and well ramming using Whacker or other similar machine in 75mm layers as directed	m ³	18		
3B3	<p>Surface Treatment</p> <p>Anti-termite treatment by specialist sub-contractor possessing registration of pesticide controller including 10 years' warrantee. (Warrantee should address directly to the employer) The chemical to be used should be approved by the pesticide controller. Work should be carried out through a reputed sub-contractor and method statement shall be submitted to the Engineer for prior approval. (Approximate Ground floor area - 100 m²)</p>	m ²	100		
Sub Total of Excavation and Earth work carried to Sub Summary of Bill No.03					
3C - CONCRETE WORKS					
	a) All concrete shall be so cast as to receive only that finishing on its exposed surfaces as specified in the respective items.	Note			
	- b) Rates shall include for plants for mixing, handling , hoisting ,depositing , etc. curing and making good after removing formwork etc.	Note			
	c) Reinforced concrete fill into formwork and pack well around steel reinforcement in followings. (Reinforcement and formwork paid separately)	Note			
	- d) All costs in connection with the construction of " kickers"	Note			
	- e) All cement type to be OPC	Note			
	<u>The quality of the concrete should confirm to the relevant B.S.,S.L.S and ICTAD specification for building works</u>				

	<i>f) All major structural concrete works (Slabs, beams, columns, footings etc) shall be 'Ready mix' concrete of relevant grade and other minor concrete works (lintels, worktops, floor Concretes etc) shall be machine mixing concrete of relevant mix ratios.</i>				
	<p><u>Formwork</u></p> <p><i>Rate for formwork shall include for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, apply approved foam oil, wetting before placing concrete, removal etc.</i></p> <p><i>Formwork is measured as the net contact surface measurement between formwork and concrete.</i></p> <p><i>Film coated Plywood or other equivalent quality approved type of shuttering to produce to have fair faced concrete finish. Mould oil should be applied to formwork surfaces before using.</i></p> <p><i>Rate for form work shall include for all necessary measures to provide fair face finish. (Concrete faces should be finished such a way to finish only with cement base putty. If not additional work involved to level the surface should be born by the Contractor)</i></p> <p><u>Reinforcement</u></p> <p><i>All reinforcement shall be as per relevant British Standards having minimum characteristic strength of 460 N/mm² for ribbed tor steel and 250 N/mm² for mild steel.</i></p> <p><i>Rate shall include for necessary tests as per BS4449 and SLS 375.</i></p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
	<i>All reinforcement shall be free from mill scale, dirt, oil, paint, grease or loose rust before fixing in position and shall be brushed with a stiff wire brush as directed.</i>	Note			

	<i>Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.</i> C15(15) Concrete	Note			
3C1	C15(25) cement concrete under column footings, wall foundation.	m ³	4		
3C2	75mm thick floor concrete on laying gauge 1000 polythene.	m ³	6		
	Grade 25(20) Concrete				
3C3	In column base & shafts up to DPC	m ³	5		
3C4	In tie beams	m ³	7		
	Formwork				
3C5	In column base & shafts up to DPC	m ²	35		
3C6	In tie beams	m ²	78		
	Reinforcement				
	High Yield Steel Reinforcement				
3C7	In column base, shafts up to DPC	kg	310		
3C8	In tie beams	kg	950		
	Mild steel				
3C9	Mild steel in columns & Tie beam	kg	45		
	Sub Total of Concrete Work Carried to Sub Summary of Bill No.03				
	3D - MASONRY WORKS				

3F6	Ground Floor	m	20		
3F7	In 225x75mm beam at window sill level. Rate to include for form work & reinforcement, 02 Nos 10mm dia. High yield steel reinforcement & 6mm dia. Mild steel stirrup @ 150mm c/c spacing	m	16		
	<u>FORMWORK</u>				
	Form work for sides of column shaft				
3F8	Ground floor level to First floor level	m ²	50		
3F9	First floor level to roof level	m ²	30		
	Form work for soffit of slab & beams				
3F10	Ground Floor	m ²	65		
3F11	First Floor	m ²	55		
3F12	Roof Beam	m ²	120		
	- REINFORCEMENT				
	High Yield steel reinforcement for column shaft				
3F13	Ground floor level to First floor level	kg	350		
3F14	First floor level to roof level	kg	210		
	High Yield steel reinforcement for slab & beams				
3F15	Ground Floor	kg	800		
3F16	First floor	kg	780		
3F17	Roof beam	kg	850		

3F18	- Mild steel reinforcement for columns & beams - Ground Floor -	kg	100		
Sub Total of Concrete Work Carried to Sub Summary of Bill No.03					
3G1	3G- BRICK WORK <i>Rate shall include for lifting, handling, wetting, all rough and fair cuttings, plumbing, reveals, rough arches, raking out all joints for pointing plastering, cutting chases, making good at the completion.</i> <i>All Bricks shall be well burnt standard size brick with specified strength.</i> <i>Reinforced concrete vertical and horizontal stiffeners for all 112mm thick wall exceeding 3m length.</i> <i>Rate shall include for erecting scaffolding and dismantling after completion of work</i> 225mm thick Brick Work in 1:5 Cement sand mortar in English bond in walls.	Note			
3G2	Ground Floor	m ²	132		
3G2	First Floor	m ²	35		
3G3	300mm thick Brick Work in 1:5 Cement sand mortar in English bond in walls. 600mm thick brick work in 1:5 Cement sand mortar in walls	m ³	34		
3G4	Ground Floor	m ³	14		

	Sub Total of Brick Work Carried to Sub Summary of Bill No.03				
	<u>3H - WATER PROOFING WORK</u>				
	Using approved quality water proofing material, exposed slabs were treated as per manufacture's specification.	Note			
	Surface should be structurally sound, clean, free from loose particles, oil, grease or any other contaminants as instructed by engineer.	Note			
	Sharp corners are to be filled with screed and water proofing should be laid with overlap as per manufactures specification	Note			
	Before applying water proofing material, saturate the prepared surface with clean water.	Note			
	This membrane should be able to fill hairline cracks with excellent functions of water proofing , wear resistance and weather resistance.	Note			
	The minimum recommended coverage as per manufacture's specification.	Note			
3H1	Application of approved type water proofing agent (Torch on Membrane type) & heat insulation layer (25mm thick insulation layer with non wooven geo- textile polyster matt or equivalent) and 50 mm thick screed concrete with 50x50mm GI mesh over the concrete roof slab As per manufacture's specification.	m ²	45		
	Sub Total of water Proofing Work Carried to Sub Summary of Bill No.03				
	3J- WALL FINISHES				

	<p><i>Rate shall include to</i></p> <p>Rate shall include for all temporary rules screed, ground etc. for raking out joints of new brick work or backing new concrete for key internal and coved angles joints between new and old plastering arises inter sections between curved or irregular surface etc.,... and all making good around pipes sanitary fittings and similar fixtures.</p> <p>15mm thick, cement sand 1:5 plaster finished semi rough with wood float on brick walls and concrete faces flush with walls on external surfaces including reveals.</p>				
3J1	Ground Floor	m ²	118		
3J2	First floor	m ²	25		
	15mm thick, cement sand 1:5 plaster finished smooth with skim coat or equivalent on walls and concrete surfaces concrete faces flush with walls on internal faces including reveals.				
3J3	Ground Floor	m ²	125		
3J4	First floor	m ²	25		
3J5	15mm thick column, beam plastering in 1:1:5 cement lime and sand finished smooth with skim coat.	m ²	20		
3J6	Provisional sum for molding work as per architectural drawing.	P.S		Allow	750,000.00
3J7	20mm thick 1:3 Cement cut & polish finish in column as per architectural drawing.	m ²	170		
	Sub Total of Wall Finishes Carried to Sub Summary of Bill No.03				
	3K- FLOOR FINISHES				

	<p><i>Rate shall include to,</i></p> <p><i>(a) All extra work involved to patterned work.</i></p> <p><i>(b) Fair edges, internal angles for Treads and risers</i></p> <p><i>(c) Ends angles, ramped and wreathed covers for strings and aprons.</i></p> <p><i>(d) Fair edges, rounded edges, covered junctions, angles, and the like for skirting curbs and edges or floors</i></p> <p><i>(e) Plastic corner beadings</i></p> <p><i>(f) Supplying and Fixing of materials</i></p> <p>Floor Tiling</p> <p><i>At the beginning Contractor shall lay floor and wall tiles section by sections for Engineers inspection and checking neatness, quality and for approval to continue tiling. Rate shall include for such costs.</i></p> <p><i>cut pieces of tiles smaller than half of a tile shall not be used.</i></p> <p><i>Floor tiles shall be homogeneous, locally manufactured, nonskid ceramic type and approved colour by the Engineer.</i></p> <p><i>Water absorption of floor tiles should be less than 0.5% and Modulus of rupture to be over 27N/mm².</i></p> <p>20mm thick 1:3 cement sand rendering including neat cement floating. (cut polish finish)</p>				
3K1	Ground Floor	m ²	40		
3K2	First floor	m ²	12		

3K3	Supplying & laying 200x100, 80mm thick interlocking paving block finished semi rough. Rate to include for concrete 300mm wide kerb line and laying quarry dust. Compressive strength of the paving blocks~ 30N/mm2	m ²	60		
3K4	100mm high cement skirting.	m	45		
3K5	Supplying, cutting & fixing rubble dressing up to 600mm height in plinth as per detail drawing	m ²	60		
Sub Total of Floor Finishes Carried to Sub Summary of Bill No.03					
3L - CEILING FINISHES <i>Rate shall include to,</i> <i>(a) Working over and around obstructions</i> <i>(b) Support work and accessories for fittings</i> <i>(c) Suspension and framed members</i> <i>(d) Cutting</i> <i>(e) Additional hangers, framing and the like</i> <i>(f) Supplying and Fixing of materials</i> Preparing & applying two coats skim coat on soffit of slab, soffit and sides of isolated beams. including reveals.					
3L1	Ground Floor	m ²	50		
3L2	Supplying & fixing 19mm thick Lunumidella exposed rafter ceiling. Rate to include for planning lunumidella planks, strain & painting as per the specifications. (Timber frame work measured separately under roof Item)	m ²	170		
Sub Total of Ceiling Carried to Sub Summary of Bill No.03					
3M- PAINTING <i>Rates shall include for,</i>					

	<p><i>The prices shall include for preparation of surface, cleaning down, use of wall fillers and primary paint coats to obtain neat surface., sand papering etc.</i></p> <p><i>Protection of floors and fittings, removing door and window furniture, and cleaning window etc. upon completion.</i></p> <p><i>Reveal, Column Projections, undersides of lintels and wall ends less than 300mm shall not be measured and shall be incorporated in other measurements. Isolated columns shall be measured for payments.</i></p>	Note			
	<p><i>All weather shield/ floor paints, primer shall be of approved make with non lead pigment.</i></p> <p><i>Rate to include for the cost for the scaffoldings. Paint shall be from "CIC Dulux" or approved equivalent to the approval of the Architects and Engineer.</i></p>	Note			
3M1	Prepare and apply one primer coat and two coats of weather shield paint of approved colour and quality to external rough plastered face of walls and reveals.	m ²	140		
3M2	Prepare and apply one primer coat and two coats of Emulsion paint of approved colour and quality to internal smooth plastered faces of walls and reveals.	m ²	145		
3M3	Slab soffit and beam painting with one primer coat and two coats of approved quality emulsion paint.	m ²	50		
Sub Total for Painting Carried to Sub Summary of Bill No.03					
<u>3N-DOORS & WINDOWS</u>					
- <u>Timber works</u>					

	<p>The frames shall be wrought, framed and fixed in position as specified in drawings. The scantling specified timber, shall planed smooth and accurate to dimension shown in drawings. Rebates, roundings and mouldings shall be made before assembly patching or plugging of any kind not be permitted except as specified.</p> <p>Timber Frames shall be 100x50mm (nominal sizes)</p> <p>Timber sashes shall be 28mm (finished thickness)</p> <p>Door frames <u>treated Kempus/ Teak</u> & sashes shall be <u>Teak</u> or approved equivalent (Class 1 timber)</p> <p>All doors , window frames (Copper - Cromium- Boron (CCB) Treated) & sashes to stain & water based paint.</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
3N1	<p>All the meterial samples shall be approved by the Architect or Engineer before fabrication.</p> <p>Glass thickness shall be 6mm thick clear glass.</p> <p>All the rates shall be include for all necessary approved heavy quality locks (Union/ Yale or equivalent), iron mongery (Brass oxidized / Brass/Stainless steel.)</p> <p>All the rates shall be include for all necessary approved heavy quality locks (Union/ Yale or equivalent), iron mongery (Brass oxidized / Brass/Stainless steel.)</p> <p>Supplying and fixing door type D1, size 900x2250mm, Timber framed Glazed and Timber Door. Rate to include brass hinges, door locks and door handles. (04 nrs)</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>m²</p>	8.01		

3N2	Supplying and fixing window type SW1, size 1200x1350mm, Timber framed glazed siding window, Rate to include brass hinges, door locks and door handles. (11 nrs)	m ²	17.82		
3N3	Supplying and fixing window type SW2, size 1200x1100mm, Timber framed glazed siding window, Rate to include brass hinges, door locks and door handles. (1 nrs)	m ²	1.32		
3N4	Supplying and fixing window type SW3, size 1200x1200mm, Timber framed glazed siding window, Rate to include brass hinges, door locks and door handles. (4 nrs)	m ²	5.76		
3N5	Supplying and fixing type L, size 2300x1200, timber framed glazed timber vertical louver panel. (4 nrs)	m ²	11.04		
3N6	Supplying and fixing type SG2, size 900x3450, Steel Grill as per detail drawing (3nrs). Rate to include for one coat of anti-corrosive primer & two coats of enamel paint.	m ²	9.32		
3N7	Supplying and fixing type SG3, Size 675x3600mm, steel Grill <u>as per detail drawing</u> (6nrs). Rate to include for one coat of anti-corrosive primer & two coats of enamel paint.	m ²	14.58		
3N8	Supplying and fixing type SG4, Size 675x2300mm, steel Grill <u>as per detail drawing</u> (4nrs.) Rate to include for one coat of anti-corrosive primer & two coats of enamel paint, 1"x1" GI mesh with frame work.	m ²	6.21		
3N9	Supplying & fixing GI hand rail consists of 60mm Outer Dia (3.65mm thick) top bar, 48.8mm dia (3.2mm thick) verticals @ spacing 1200mm and 05 Nos. of 12mm GI steel solid intermediate bars as per detail drawing. Rate to include for one coat of etching primer & two coats of enamel paint.	m	2.6		

Sub Total for Roof Covering Carried to Sub Summary of Bill No.03					
3P- ROOF COVERING & ROOF PLUMBING					
<p>-</p> <p>1)All timber used for roof frame work, beams, pergolas, columns shall be pressure impregnated "Kempus" or treated with other method approved by the Engineer. The pressure impregnation should be done locally, after selecting the timber for the works; by an approved timber treating organization and a certificate of CCB (Copper Chrome Boron) treatment and the guarantee shall be submitted by the Contractor before installation.</p> <p>2) All timber members in roof frame, beams, pergolas, ceiling, columns & valance board shall be planed and equally sized.</p>					
<p>3) The cross sectional dimensions of all timber members for roof frame ,beams, pergolas, ceiling & valance board given below are finished dimensions.</p> <p>4) All surfaces of timber members shall be applied with two coats of sanding sealer and two coats of water based paint matt finish of approved colour.</p> <p>5) Rates for items under 3P -Roofer' below shall be inclusive of costs for treating, stain & painting of timber as specified, planning, cutting, jointing, hoisting, placing in position, wastages of materials, supplying of all fixtures and accessories such as nails, nuts & bolts, washers, plates where necessary.</p> <p>Roof Timber</p>					
3P1	Supplying and fixing of 100x50mm (4"x2") size CCB treated Kempus timber rafter.	m	420		
3P2	Supplying and fixing of 150x100mm size CCB treated Kempus timber beam.	m	20		

3P3	Supplying and fixing of 100x75mm (4"x3") size CCB treated Kempus timber for wall plate.	m	70		
3P4	Supplying and fixing of 175x50mm size CCB treated Kempus timber for ridge plate & Hip rafter	m	85		
3P5	Supplying and fixing of 50x25mm (2"x1") size CCB treated Kempus timber reepers.	m	660		
3P6	Roof Covering Supplying & laying pressed cement roofing tiles of approved colour ("Colourcon" or equivalent quality approved by the Engineer) on timber framework. The cost of timber framework is paid separately. Rate shall be inclusive of supplying & placing of ridge tiles, hip covering, ridge starter, 3way Apex bedded with 1:3 cement sand mortar and coloured to match tiles where necessary, nailing. Approximate cross sectional dimensions and weight of a tile to be 333mm x 425mm + or - 4mm and 4.9 kg + or - 5% respectively.	m ²	170		
3P7	Supplying & laying 0.35mm TCT non colour plain Zn/Al sheet above the aluminium foil.	m ²	170		
3P8	Supplying & fixing 225mm, 25mm thick Kempus valance & Barge board. Rate to include for one coat of primer & two coats of enamel paint.	m	102		
Sub Total for Roof Covering Carried to Sub Summary of Bill No.03					
	<u>3S- MISCELLANEOUS WORK</u>				
3S1	Construction of 750mm wide 75mm thick C15 (25mm) concrete pavement finished with 12mm thick 1:2 cement sand rendering rear side of the building.	m	50		

3S2	Construction of 600mm wide (100mm thick) concrete work top finished with glazed wall tiling. Rate to include for form work and reinforcement	m	4		
3S3	Supplying and fixing of 1000mmx500mm Stainless steel kitchen Sink with single bowl single drain, 1 1/2" dia "plumber" or equivalent chromium plated bottle traps and all other necessary accessories fixed complete with 1/2" dia. chromium plated tap with Swan Neck with water service connection, complete to working order. Prime cost per fitting (including tap)~ 15,000.00.	nr	1		
3S4	Supplying, fabricating & fixing steel framed steel gates size 5.7x 2.6m <u>as per architectural drawing</u> . Rate to include for one coat of anti corrosive primer and two coats of epoxy paint (01 nos) and all necessary accessories.	nr	1		
3S5	Supplying, fabricating & fixing steel framed steel gates size 1.5x 2.6m <u>as per architectural drawing</u> . Rate to include for one coat of anticorrosive primer and two coats of epoxy paint and all necessary accessories and all necessary accessories.	nr	2		
3S6	Supplying & fixing 3.0m height steel ladder <u>as per detail drawing</u>	nr	2		
3S7	Allow unforeseen work during estimating phase which may occur during construction stage.	P.S		Allow	130,000.00
3S8	Allow Provisional sum for construction of security huts & Steel framed barrier gate as in the drawing.	P.S		Allow	275,000.00
Sub Total for Miscellaneous Works Carried to Sub Summary of Bill No.03					

	<u>3T-ELECTRICALWORKS</u>				
I	Rates in Bill of Quantities shall include all necessary materials (Cables, conduits, PVC sunk box, bulbs, switches etc.) and labour required to complete the electrical installation to good working order.				
II	- Except where specifically stated, all costs associated with provision of all holes, openings, chases, ducts and other builders' work required for installation and make them good, shall be included in the rates.				
III	- Where reference is made to certain manufactures' products and items identified by registered trademarks, has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer. However all equipment and material should meet the BS or an equivalent standard.				
IV	- Testing and commissioning of the electrical installation is to be carried out by the contractor and inspection report submitted according to the requirements of the power supply Authority.				
V	- Electrical Items (MCB, RCCB etc.) should be of European/Japanese origin or to the BS or equivalent and items without an accredited agent in Sri Lanka shall not be accepted. Guarantee cards(Fans etc.) should be provided from accredited agent before installation.				
VI	- All the quantities given here are approximated values and Quantities may change with the actual installation at the site.				
	-				


VII	All types of fittings, materials, painting and finishes shall be approved by the Engineer prior to installation.				
VIII	<p>- All panel boards and consumer units should have wire numbering and a laminated circuit diagram should be pasted on the inside surface of the door.</p> <p>- Note:- <u>Recommended Brands for Electrical Items</u></p> <p>A <u>Protective items (MCCBs, MCBs, RCCBs & ISOs</u> Schneider,ABB,Hager,Eaton (Moeller) ,Terasaki or Eq.</p> <p>B <u>Surge protective Device (SPDs)</u> obo-bettermann,j.propster,Schneider or Eq.</p> <p>-</p> <p>C <u>Fans</u> KDK Original or brands approved by the Engineer.</p> <p>D <u>Electrical Switches & Socket Outlets</u> Orange,ACL,Clipsal(schneider) or Eq.</p> <p>E <u>Light Fittings</u> Japanes, malayasian made or brands approved by the Engineer.</p> <p>F <u>Bulbs (CFL,halogen bulb,sodium vapour lamp)</u> Philips,Osram or Eq.</p> <p>G <u>Cables</u> Kelani,Sierra,ACL or Eq.</p> <p>H <u>Polycarbonate made enclosure</u> Polychrome or brands approved by the Engineer.</p>				
	-				

I	PVC Trunking KTK or brands approved by the Engineer.				
	-				
3T1	Electrical Distribution System Associated work for the getting CEB Electricity connection -Client pay for the connections.(30A Single phase Connections.)	PS		Allow	30,000.00
3T2	Single Phase Consumer Unit (SCU1) Supply and installation of wall mounted switch gear cubicle made out of polycarbonate sunk type enclosure to the approval of the engineer with equipment as specified in each board. Additional space to be provided inside the distribution board enclosure to install two additional breakers (of capacity with existing max.Outgoing breaker) if necessary.(including civil work for fixing sunk type enclosure to the wall properly) 01 No 40A,2P Isolator 03 No 20A,MCB, 2P,6kA 01 No RCCB, 40A, 30mA, 2P 10 Nos MCBs, 1P (6A-32A)-6kA Two rows 24 way Polycarbonate made enclosure (sunk type) All internal connections Earth Bar Equipment to be to the BS/IEC	No	1		
3T3	Single Phase Consumer Unit (SCU2) Supply and installation of wall mounted switch gear cubicle made out of polycarbonate sunk type enclosure to the approval of the engineer with equipment as specified in each board. Additional space to be provided inside the distribution board enclosure to install two additional breakers (of capacity with existing max.Outgoing breaker) if necessary.(including civil work for fixing sunk type enclosure to the wall properly)	No	1		

3T10	Supply and installation of Outdoor type(IP65) Wall Bracket light fittings with 9W LED bulb inside, with accessories.	Nos	14		
3T11	Supply and installation of Outdoor type (IP65) 100W LED flood light with accessories.	Nos	2		
3T12	Supply and installation of Outdoor type (IP65) 10W spotlight with accessories.	Nos	3		
3T13	Supply and installation of indoor type 3W spotlight with accessories.	Nos	3		
3T14	Supply and installation of Outdoor type rectangular LED (IP65) Niche light fitting of 6W , with accessories.	Nos	17		
3T15	<u>Light Point Wiring</u> Wiring (including supply of all materials) of the above light points using approved type PVC insulated PVC sheathed 1 mm ² copper cable drawn through securely fixed concealed PVC conduit with 2.5 mm ² earth cable.	Nos	51		
3T16	<u>Fans</u> <u>Wall fans</u> Supply & installation of 400mm (16") diameter 60W wall fans with all necessary accessories.	Nos	4		
3T17	<u>Wall Fan point wiring</u> Supplying, wiring and installation 2.5mm ² 2C Cu/PVC/PVC cable and 2.5mm ² Cu/PVC earth conductor with all accessories and wire with 13 Amp single switch socket outlet in radial circuit (including switch socket outlet).	Nos	4		
3T18	<u>Socket Outlets</u> <u>13A Socket outlets</u>				

3T19	Supply & installation of 13A shuttered switched single socket outlet to comply with BS . <u>Wiring of 13A Socket outlets (radial circuit)</u>	Nos	12		
3T20	Wiring (including supply of all material required) of 13A socket outlets using approved type 2.5mm ² Cu/PVC/PVC, 2C cable & 2.5mm ² earth cable drawn through securely fixed concealed PVC conduit. <u>Main Earthing System</u> Supply and Installation of an earth electrode of minimum 16mm dia. copper Bonded rod of length 1.2m or more with a clamp connection to earth conductor. Earth resistance shall be less than 10 Ohms tested on a dry day. An earth pit of size 300mm x 300mm x 300mm is to be prepared and covered by concrete plate to protect the earth electrode.	Item	12		
3T21	<u>Inspection and Testing - Electrical installation</u> Testing the installation and rectify any defects and submit a certificate by a Chartered Electrical Engineer.	Item			
3T22	<u>Telephone Network</u> <u>Telephone Junction Boxes (TJBs)</u> Supply and Installation of telephone junction box with 10 pair crone sets.	No	1		
3T23	<u>Telephone Socket Outlets</u> Supply and installation of RJ(11) single, shuttered, sunken wall mounted telephone socket outlet with modular insert and face plate comprising all other accessories required complying with relevant BS/IEC standards.	Nos	4		
3T24	<u>Wiring of Telephone Socket Outlets</u>				

	Wiring up to the telephone socket outlets from the respective floor junction box using approved type 2 (0.5×4 mm ²) pair UTP (Unshielded Twisted Pair) telephone cable drawn through securely fixed concealed PVC conduits comprising all other accessories required.	Nos	4		
3T25	<u>Testing & Commissioning-Telephone Network</u>				
	Testing the installation and rectify any defects and submit a certificate with as built drawing of Telephone Network.	Item			
Sub Total for Electrical Works Carried to Sub Summary of Bill No.03					


 Capital Works Division
 Uva Wellassa University
 Badulla

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY
BILL OF QUANTITY

BILL NO. 04 - GATE 01 - CHANGING ROOMS

Floor Area ~265 ft²

SUB SUMMARY

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
4	<u>SUBSTRUCTURE</u>		
4B	EXCAVATION		
4C	CONCRETE		
4D	RANDOM RUBBLE MASONRY		
4E	PLASTERING		
	<u>SUPERSTRUCTURE</u>		
4F	CONCRETE		
4G	BRICK & WORK		
4H	WATER PROOFING		
4J	WALL FINISHES		
4K	FLOOR FINISHES		
4L	CEILING FINISHES		
4M	PAINTING		
4N	DOORS & WINDOWS		
4P	ROOF COVERING & ROOF PLUMBING		
4Q	PLUMBING		
4R	WASTE WATER & SEWERAGE		
4S	MISCELLANEOUS		
4T	ELECTRICAL INSTALLATION		
	SUB TOTAL OF BILL NO: 04 CARRIED TO GRAND SUMMARY		

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY

BILL OF QUANTITY

BILL NO. 04 - GATE 01 - CHANGING ROOMS

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<u>SUBSTRUCTURE</u>				
	4B - EXCAVATION AND EARTH WORK				
	<i>Excavation</i>				
4B-1	Removing unsuitable material stripping top soil with 150mm depth & removal of debris from site as instructed by engineer.	m ³	4		
4B-2	Excavation for wall ,column foundation to a depth not exceeding 1.5m in any material except rock requiring blasting, part return fill in and rammed and surplus spreading within the site as directed.	m ³	10.00		
	<i>Filling</i>				
4B-3	Supplying and filling under floors with available approved filling material approved by the Engineer including spreading, watering and well ramming using Whacker or other similar machine in 75mm layers as directed	m ³	4		
	<i>Surface Treatment</i>				

4B-4	Anti-termite treatment by specialist sub-contractor possessing registration of pesticide controller including 10 years' warrantee. (Warrantee should address directly to the employer) The chemical to be used should be approved by the pesticide controller. Work should be carried out through a reputed sub-contractor and method statement shall be submitted to the Engineer for prior approval. (Approximate Ground floor area - 32m ²)	m ²	32		
	Sub Total of Excavation and Earth work carried to Sub Summary of Bill No.04				
	4C - CONCRETE WORKS				
	C15(25) Concrete				
4C-1	C15(25) cement concrete under column footings, wall foundation.	m ³	1		
4C-2	75mm thick floor concrete on laying gauge 1000 polythene.	m ³	1		
	Grade 25(20) Concrete				
4C-3	In column base & shafts up to DPC	m ³	1		
4C-4	In tie beams	m ³	2		
	Formwork				
4C-5	In column base & shafts foundation up to DPC	m ²	7		
4C-6	In tie beams	m ²	16		
	Reinforcement				
	High Yield Steel Reinforcement				
4C-7	In column base, shafts up to DPC	kg	70		
4C-8	In tie beams	kg	80		

4C-9	Mild steel Mild steel in columns & Tie beam	kg	25		
Sub Total of Concrete Work Carried to Sub Summary of Bill No.04					
	4D - MASONRY WORKS				
4D-1	6" x 9" Random rubble masonry in 1:5 cement sand mortar for wall foundation.	m ³	4		
Sub Total of Masonry Carried to Sub Summary of Bill No.04					
	4E - PLASTERING				
4E-1	20mm thick 1:3 cement sand rendering for plinth plaster including finishing smooth with grey cement floating coat.	m ²	6		
4E-2	20mm thick D.P.C. in cement sand 1:2 finished with 2 coats of D.P.C. tar and blinded with sand.	m ²	3		
Sub Total of Plastering Carried to Sub Summary of Bill No.04					
	<u>SUPERSTRUCTURE</u>				
	4F - CONCRETE WORK				
	<u>Grade 25 (20) cement concrete</u>				
4F-1	In column shafts.	m ³	1		
4F-2	In roof beams.	m ³	2		
4F-3	225mmx225mm lintols in 1:2:4 (20mm) concrete including formwork and 4 nr 10mm H/Y steel bars and 6mm dia. mild steel @ 175 C/C spacing.	m	7		
4F-4	112mmx150mm lintols in 1:2:4 (20mm) concrete including formwork and 04 nr 10mm H/Y steel bars and 6mm dia. mild steel @ 175 C/C.	m	6		

4F-5	In 225x75mm beam at window sill level. Rate to include for form work & reinforcement, 02 Nos 10mm dia. High yield steel reinforcement & 6mm dia. Mild steel stirrup @ 150mm c/c spacing.	m	4		
	FORMWORK				
4F-6	In column shaft	m ²	5		
4F-7	In roof beams	m ²	19		
	REINFORCEMENT				
	High Yield steel				
4F-8	In column shaft	kg	88		
4F-9	In roof beams	kg	100		
	Mild steel				
4F-10	- In roof beam	kg	40		
Sub Total of Concrete Work Carried to Sub Summary of Bill No.04					
	4G- BRICK WORK				
4G-1	225mm thick Brick Work in 1:5 Cement sand mortar in English bond in walls.	m ²	56		
4G-2	300mm thick brick work in 1:5 Cement sand mortar in walls	m ³	4		
4G-3	112mm thick Brick Work in 1:5 Cement sand mortar in stretcher bond in walls.	m ²	39		
Sub Total of Brick Work Carried to Sub Summary of Bill No.04					
	4H - WATER PROOFING WORK				

	For Toilets Base & Walls				
4H-1	Applying XYPEX or other approved waterproofing material in two coats on surfaces of concrete slabs as per manufacturer's specification (Minimum coverage per each layer at 0.8 Kg/m ²). Rate to include for cleaning existing concrete surfaces to be free from dust, cement laitance, grout deposits and repair honey combs, P-cone holes, construction joints with approved non shrink, high strength repair grout, 25mm x 25mm angle fillet with 1:3 cement sand mortar and curing the application for 3 days.	m ²	16		
	Sub Total of water Proofing Work Carried to Sub Summary of Bill No.04				
	4J- WALL FINISHES				
4J-1	15mm thick, cement sand 1:5 plaster finished semi rough with wood float on brick walls and concrete faces flush with walls on external surfaces including reveals.	m ²	55		
4J-2	15mm thick, cement sand 1:5 plaster finished smooth with skim coat or equivalent on walls and concrete surfaces concrete faces flush with walls on internal faces including reveals.	m ²	115		
4J-3	15mm thick 1:5 cement and sand plaster finished semi rough with wood float to isolated concrete columns	m ²	25		
4J-4	Supplying & fixing 300x200mm glazed wall tiles up to 1.45m height in toilet walls. Rate to include for 20mm thick 1:3 raking plaster. (Prime Cost Rs. 95.00-110.00 per tile)	m ²	13		
	Sub Total of Wall Finishes Carried to Sub Summary of Bill No.04				
	4K - FLOOR FINISHES				

4K-1	20mm thick 1:3 cement sand rendering including neat cement floating. (cut polish finish)	m ²	16		
4K-2	Supplying and laying of locally manufactured homogeneous matt floor tiles size 300mm x 300mm bedding on 12mm thick, 1:3 cement bedding finished with colour grout to match. (Prime Cost of Rs.200.00-250.00 per tile)	m ²	4		
4K-3	100mm high cement skirting .	m	25		
	Sub Total of Floor Finishes Carried to Sub Summary of Bill No.04				
	4L - CEILING FINISHES				
4L-1	Supplying & fixing 19mm thick Lunumidella exposed rafter ceiling. Rate to include for planning lunumidella planks, strain & painting as per the specifications. (Timber frame work measured separately under roof Item)	m ²	30		
4L-2	Supplying & fixing asbestos sheet slope ceiling on exposed rafters for eave. Rate to include for planning with one coat of primner & two coats of emulsion paint.(Timber frame work measured separately under roof Item)	m ²	15		
	Sub Total for Ceiling Finishes Carried Sub Summary of Bill No.04				
	4M- PAINTING				
4M-1	Prepare and apply one primer coat and two coats of weathershield paint of approved colour and quality to external rough plastered face of walls and reveals.	m ²			
4M-2	Prepare and apply one primer coat and two coats of Emulsion paint of approved colour and quality to internal smooth plastered faces of walls and reveals.	m ²			
	Sub Total for Painting Carried to Sub Summary of Bill No.04				

	4N - DOORS & WINDOWS				
4N-1	Supplying and fixing window type SW1, size 1200x1350mm, Timber framed glazed siding window, Rate to include brass hinges, door locks and door handles. (02nrs)	m ²	3.25		
4N-2	Supplying and fixing door type D1, size 900x2250mm timber framed timber door. Rate to include for all necessary fittings to working order and painting. (02 Nrs)	m ²	4.01		
4N-3	Supplying and fixing door type D2, size 750x2250mm powder coated Aluminium framed Aluminium cladding door. Rate to include for all necessary fittings to working order and painting. (02 Nrs)	m ²	3.34		
4N-4	Supplying and fixing Fanlight type FL, size 600x750mm timber framed glazed & timber fanlight. (02Nrs)	m ²	0.90		
4N-5	Supplying and fixing type SG4, Size 675x2300mm, steel Grill as per detail drawing (02nrs.) Rate to include for one coat of anti-corrosive primer & two coats of enamel paint.	m ²	3.11		
4N-6	Supplying and fixing type SG5, Size 675x6000mm, steel Grill as per detail drawing (02nrs.) Rate to include for one coat of anti-corrosive primer & two coats of enamel paint.	m ²	8.1		
	Sub Total for Doors & Windows Carried Sub Summary of Bill No.04				
	4P- ROOF COVERING & ROOF PLUMBING				
	- Roof Timber				
4P-1	Supplying and fixing of 100x50mm (4"x2") size CCB treated Kempus timber rafter.	m	99		
4P-2	Supplying and fixing of 100x75mm (4"x3") size CCB treated Kempus timber for wall plate.	m	22		

4P-3	Supplying and fixing of 175x50mm size CCB treated Kempus timber for ridge plate & Hip rafter	m	18		
4P-4	Supplying and fixing of 50x25mm (2"x1") size CCB treated Kempus timber reepers.	m	197		
4P-5	<u>Roof Covering</u> Supplying & laying pressed cement roofing tiles of approved colour ("Colourcon" or equivalent quality approved by the Engineer) on timber framework. The cost of timber framework is paid separately. Rate shall be inclusive of supplying & placing of ridge tiles, hip covering, ridge starter, 3way Apex bedded with 1:3 cement sand mortar and coloured to match tiles where necessary, nailing. Approximate cross sectional dimensions and weight of a tile to be 333mm x 425mm + or - 4mm and 4.9 kg + or - 5% respectively.	m ²	45		
4P-6	Supplying & laying 0.35mm TCT non colour plain Zn/Al sheet above the aluminium foil.	m ²	45		
4P-7	Supplying & fixing 225mm, 25mm thick Kempus valance board. Rate to include for one coat of primer & two coats of enamel paint.	m	22		
4P-8	<u>Roof Plumber</u> - Supplying & fixing AZ 150, 0.47mm TCT Zn/Al down pipes of size 100x100mm. Rate to include for brackets, brass screw, wooden plugs etc.	m	17		
4P-9	Supplying & fixing AZ 150, 0.47mm TCT Zn/Al eave gutters of girth 470mm. Rate to include for necessary brackets.	m	22		
	<i>Sub Total for Roof Covering & Roof Plumbing Carried to Sub Summary of Bill No.04</i>				

	4Q- PLUMBING				
4Q-1	Furnishing & installing ceramic squatting pan (with high level cistern) (standard size) complete with foot rest and all other necessary connections. Approximate price per fitting~ Rs. 10,000.00	nr	1		
4Q-2	Supplying & fixing closed couple low level water closet (WC) complete with 6/4.5 litre capacity flushing cistern & fittings, seat & cover, "P" or "S " trap, WC connector, flexible hose etc, all accessories complete to working order (Rocel or approved equivalent). Approximate price per fitting ~ Rs. 35,000.00	nr	1		
4Q-3	Supply and installation of under counter wash basins in overall white vitreous china including 40mm (1 1/4") dia. plastic bottle trap, 20mm (1/2") dia. 01 nr. plastic (Water tech or equivalent) pillar tap of approved quality, 40mm (1 1/4") dia. waste plug and chain, PVC flexible hose, brackets with all other accessories and special connection to complete work in order in all toilets. Rate to include for fixtures. Angle valve measured separately. (Prime cost per wash basin Rs. 13,000.00, prime cost of pillar tap~ RS. 3600.00)	nr	2		
4Q-4	Supply and fixing of 600x400mm anti-fog large plain Glass Mirror with stainless steel clips and plugs to be fixed to wall. Rate to include for fixtures (prime cost Rs. 1,345.00).	nr	2		
4Q-5	Supply and fixing of Hand Bidet Shower (Rocel(RB. TGN.OFA 700.Ab.PA) or approved equivalent) with flexible hose including wall mounted brackets in toilets. Rate to include for all fixtures and special connection to water supply line. Angle valve measured separately. (Prime cost of bidet shower Rs. 3200.00.00)	nr	1		

4Q-6	Supply and fixing of plastic Bib Taps (Watertec or equivalent) in toilets. Rate to include for all fixtures. (Prime cost Rs. 1200.00)	nr	2		
4Q-7	Supply and fixing of 150x150mm molded uPVC Floor Trap Gully and heavy duty stainless steel cover plate in all toilets. Rate shall include for all fixtures.	nr	2		
4Q-8	Supply and installation of stainless steel double Coat Hooks . Rate to include for fixtures. (Prime cost Rs.1,000.00)	nr	2		
<u>Water supply distribution system</u>					
<u>Pipe Work</u>					
4Q-9	Supplying, laying and fixing of 20mm dia. Type 1000, PVC pipe including all fittings.	m	5		
4Q-10	- Supplying, laying and fixing of 25mm dia. Type 1000, PVC pipe including all fittings.	m	5		
4Q-11	Supplying, laying and fixing of 32mm dia. Type 1000, PVC pipe including all fittings.	m	2		
4Q-12	Supplying, laying and fixing of 40mm dia. Type 1000, PVC pipe including all fittings.	m	8		
4Q-13	Supplying, laying and fixing of 50mm dia. Type 1000, PVC pipe including all fittings.	m	8		
<u>Pipe fixtures & Fittings</u>					
4Q-14	- Supply and installation of plastic angle valve (watertec or approved equivalent) (Prime cost of angle valve is Rs.400.00).	nr	6		
4Q-15	Supplying & fixing of 20mm dia chromium plated gate valves. (Pegler or approved equivalent)	nr	2		

4Q-16	Supplying & fixing of 40mm dia chromium plated gate valves. (Pegler or approved equivalent)	nr	2		
4Q-17	Supplying & fixing of 50mm dia chromium plated gate valves. (Pegler or approved equivalent)	nr	2		
	Sub Total for Plumbing Carried to Sub Summary of Bill No.04				
4R-1	<u>4R-WASTE WATER & SEWERAGE</u> - Supplying & Laying 110mm dia. Type 600 PVC pipes to sewer line at underground outside the building . Rate to include excavation & back filling.	m	5		
4R-2	Supplying and laying 63mm dia. Type 600 PVC pipes to waste water line. Rate to include excavation & back filling.	m	3		
4R-3	Supplying and laying 50mm dia. Type 600 PVC pipes to waste water line. Rate to include excavation & back filling.	m	8		
4R-4	Supplying and laying 40mm dia. Type 600 PVC pipes to waste water line. Rate to include excavation & back filling.	m	2		
4R-5	Supply & Installation of 1200mm dia 1800mm long Pre cast concrete Septic tank as per detail drawing. Rate to include for excavation, concreting, formwork, RF and all complete as directed.	nr	1		
4R-6	Supply & Installation of 1200mm dia Pre cast concrete soakage pit (2400mm height) with heavy duty cover slab Rate to include for excavation, concreting & installation as directed.	nr	1		

4R-7	Supply all material and construct size of internal 600x600mm sized (depth min 0.6 m) Sewer Manhole in grade 25(20) concrete for 125mm thick base, walls and top slab consisting of all necessary form work, reinforcement (T8 @ 150 mm c/c single net), benching, internal plastering, Cast Iron cover and all necessary pipe work complete to working order as shown in the drawing and directed by Engineer. Rate shall include for excavation, shoring, dewatering, compacting and preparing surface, backfilling, disposal of surplus excavated material from site, 50mm thick Gr15(25) screed concreting, polythene etc.	nr	2		
	Sub Total for Waste Water & Swerage Carried to Sub Summary of Bill No.04				
4S-1	4S - MISCELLANEOUS Construction of 750mm wide 75mm thick C15 (25mm) concrete pavement finished with 12mm thick 1:2 cement sand rendering.	m	8		
	Sub Total for Micellaneous Carried to Sub Summary of Bill No.04				
4T-1	<u>4T - Electrical works</u> <u>Electrical Distribution System</u> <u>Single Phase Consumer Unit (CU-CHANING)</u> Supply and installation of wall mounted switch gear cubicle made out of polycarbonate sunk type enclosure to the approval of the engineer with equipment as specified in each board. Additional space to be provided inside the distribution board enclosure to install two additional breakers (of capacity with existing max.Outgoing breaker) if necessary.(including civil work for fixing sunk type enclosure to the wall properly) 01 No 40A,2P Isolator 01 No RCCB, 40A, 30mA, 2P 04 Nos MCBs, 1P (6A-32A)-6kA 12 way Steel enclosure (sunk type) All internal connections	No	1		

4T-2	<p>Earth Bar</p> <p>Equipment to be to the BS/IEC</p> <p>Cables Supply and installation (with all materials required including conduits and termination) of following cables.</p> <p>- 6mm², 2C Cu/PVC/SWA/PVC Cables wire From SCU1 to CU-CHANGING (including civil work)</p> <p>Light Fittings Note :- All LED bulb should be replaceable type without changing the light fittings & warranty of all LED bulbs must be minimum two years.</p>	m	30		
4T-3	Supply and installation of Sunk/Surface type White, 4" 6W LED panel light fitting with accessories.	Nos	2		
4T-4	Supply and installation of Sunk/Surface type White, 6" 12W LED panel light fitting with accessories.	Nos	2		
4T-5	Supply and installation of Outdoor type(IP65) Wall Bracket light fittings with 9W LED bulb inside, with accessories.	Nos	5		
4T-6	<p>Light Point Wiring Wiring (including supply of all materials) of the above light points using approved type PVC insulated PVC sheathed 1 mm² copper cable drawn through securely fixed concealed PVC conduit with 2.5 mm² earth cable.</p>	Nos	9		
4T-7	<p>Socket Outlets 13A Socket outlets Supply & installation of 13A shuttered switched single socket outlet to comply with BS.</p>	Nos	2		

4T-8	<u>Wiring of 13A Socket outlets (radial circuit)</u> Wiring (including supply of all material required) of 13A socket outlets using approved type 2.5mm ² Cu/PVC/PVC, 2C cable & 2.5mm ² earth cable drawn through securely fixed concealed PVC conduit.	Nos	2		
4T-9	<u>Inspection and Testing - Electrical installation</u> Testing the installation and rectify any defects and submit a certificate by a Chartered Electrical Engineer.	Item		Allow	
Sub Total for Electrical works Carried to Sub Summary of Bill No.04					

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY

BILL OF QUANTITY

BILL NO 05 - GATE 02 - LEFT WING

(Approximate Floor Area ~ 2345 ft²)

SUB SUMMARY

ITEM	DESCRIPTION	AMOUNT	
		Rs	Cts
5	<u>SUBSTRUCTURE</u>		
5B	EXCAVATION		
5C	CONCRETE		
5D	RANDOM RUBBLE MASONRY		
5E	PLASTERING		
	<u>SUPERSTRUCTURE</u>		
5F	CONCRETE		
5G	BRICK WORK		
5H	WATER PROOFING		
5J	WALL FINISHES		
5K	FLOOR FINISHES		
5L	CEILING FINISHES		
5M	PAINTING		
5N	DOORS & WINDOWS		
5P	ROOF COVERING & ROOF PLUMBING		
5Q	MISCELLANEOUS		
5R	ELECTRICAL INSTALLATION		
	SUB TOTAL OF BILL NO: 04 CARRIED TO GRAND SUMMARY		

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY
BILL OF QUANTITY

BILL NO. 05- GATE 02 - LEFT WING

Item	Description	Unit	Qty.	Rate Rs. Cts.	Amount Rs. Cts.
	<u>SUBSTRUCTURE</u>				
	5B - EXCAVATION AND EARTH WORK				
	<i>As excavation measured net unless otherwise specified in item description.</i>	Note			
	<i>Excavation shall be done as instructed by the Engineer and with close supervision of the Engineer's representative. Foundation depth may have varied according to site condition.</i>	Note			
	<i><u>Rate include unless otherwise stated</u></i>				
	<i>Trimming sides, keeping clean and consolidating bottom of bases and trenches etc. levelling and consolidation where required. leveling and compacting where required under slabs or sub floor layers. Cost of Dewatering should also be included into the rates</i>	Note			
	<i>Back filling with selected excavated materials from site as specified and directed.</i>	Note			
	<i><u>Any necessary additional excavation for working space, planking and strutting, shoring or any other form of supporting earth, formwork etc.</u></i>	Note			

5B1	<p>Excavation</p> <p>Excavation for wall ,column foundation to a depth not exceeding 1.5m in any material except rock requiring blasting, part return fill in and rammed and surplus spreading within the site as directed.</p>	m ³	65		
5B2	<p>Filling</p> <p>Supplying and filling under floors with available approved filling material approved by the Engineer including spreading, watering and well ramming using Whacker or other similar machine in 75mm layers as directed</p>	m ³	55		
5B3	<p>Supplying and filling under floors with borrowed gravel or other filling material approved by the Engineer including spreading, watering and well ramming using Whacker or other similar machine in 75mm layers as directed</p>	m ³	5		
5B4	<p>Surface Treatment</p> <p>Anti-termite treatment by specialist sub-contractor possessing registration of pesticide controller including 10 years' warrantee. (Warrantee should address directly to the employer) The chemical to be used should be approved by the pesticide controller. Work should be carried out through a reputed sub-contractor and method statement shall be submitted to the Engineer for prior approval. (Approximate Ground floor area - 210 m²)</p>	m ²	205		

	Sub Total of Excavation and Earth work carried to Sub Summary of Bill No.04				
	<p>5C - CONCRETE WORKS</p> <p>a) All concrete shall be so cast as to receive only that finishing on its exposed surfaces as specified in the respective items.</p> <p>-</p> <p>b) Rates shall include for plants for mixing, handling , hoisting ,depositing , etc. curing and making good after removing formwork etc.</p> <p>c) Reinforced concrete fill into formwork and pack well around steel reinforcement in followings. (Reinforcement and formwork paid separately)</p> <p>-</p> <p>d) All costs in connection with the construction of " kickers"</p> <p>-</p> <p>e) All cement type to be OPC</p> <p>-</p> <p><u>The quality of the concrete should confirm to the relevant B.S.,S.L.S and ICTAD specification for building works</u></p> <p>-</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
	<p>f) All major structural concrete works (Slabs, beams, columns, footings etc) shall be 'Ready mix' concrete of relevant grade and other minor concrete works (lintels, worktops, floor Concretes etc) shall be machine mixing concrete of relevant mix ratios.</p> <p><u>Formwork</u></p>				

	<p><i>Rate for formwork shall include for all necessary boarding, supports, erecting, framing, cutting angles, cleaning, apply approved foam oil, wetting before placing concrete, removal etc.</i></p>	Note			
	<p><i>Formwork is measured as the net contact surface measurement between formwork and concrete.</i></p>	Note			
	<p><i>Film coated Plywood or other equivalent quality approved type of shuttering to produced to have fair faced concrete finish. Mould oil should be applied to formwork surfaces before using.</i></p>	Note			
	<p><i>Rate for form work shall include for all necessary measures to provide fair face finish.(Concrete faces should be finished such a way to finish only with cement base putty. If not additional work involved to level the surface should be born by the Contractor)</i></p>	Note			
	<p><u>Reinforcement</u></p>				
	<p><i>All reinforcement shall be as per relevant British Standards having minimum characteristic strength of 460 N/mm² for ribbed tor steel and 250 N/mm² for mild steel.</i></p>	Note			
	<p><i>Rate shall include for necessary tests as per BS4449 and SLS 375.</i></p>	Note			
	<p><i>All reinforcement shall be free from mill scale, dirt, oil, paint, grease or loose rust before fixing in position and shall be brushed with a stiff wire brush as directed.</i></p>	Note			

	<i>Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.</i>	Note			
	<p><i>All reinforcement shall be free from mill scale, dirt, oil, paint, grease or loose rust before fixing in position and shall be brushed with a stiff wire brush as directed.</i></p> <p><i>All cement type to be Ordinary Portland Cement (OPC)</i></p> <p><i>Rate for reinforcement shall include for supplying, cleaning, cutting, bending, fabricating, binding, placing in position, binding wires, ties, supporting bars, spaces, chairs, wastage etc.</i></p> <p>C15(15) Concrete</p>	Note			
5C1	C15(25) cement concrete under column footings, wall foundation.	m ³	4		
5C2	75mm thick floor concrete on laying gauge 1000 polythene.	m ³	15		
	Grade 25(20) Concrete				
5C3	In column base & shafts up to DPC	m ³	8		
5C4	In tie beams	m ³	15		
	Formwork				
5C5	In column base & shafts foundation up to DPC	m ²	55		
5C6	In tie beams	m ²	120		
	Reinforcement				

	High Yield Steel Reinforcement				
5C7	In column base, shafts up to DPC	kg	600		
5C8	In tie beams	kg	1150		
	Mild steel				
5C9	Mild steel in columns & Tie beam	kg	340		
	Sub Total of Concrete Work Carried to Sub Summary of Bill No.05				
	5D - MASONRY WORKS				
	<i>Rate include for all joggles, cramps, dowels, ties, templates, rough and fair cutting, forming splays, angles, reveals and setting, joining, fixing in position and pointing, protecting and cleaning down</i>	Note			
5D1	6" x 9" Random rubble masonry in 1:5 cement sand mortar for wall foundation and toe wall behind the building.	m ³	43		
	Sub Total of Masonry Carried to Sub Summary of Bill No.05				
	5E - PLASTERING				
5E1	20mm thick 1:3 cement sand rendering for plinth plaster including finishing smooth with grey cement floating coat.	m ²	25		
5E2	20mm thick damp proof course in cement sand 1:2 finished with 2 coats of D.P.C. tar and blinded with sand.	m ²	5		
	Sub Total of Plastering Carried to Sub Summary of Bill No.05				

	<u>SUPERSTRUCTURE</u>				
	5F - CONCRETE WORK				
	<i>Refer 4C - Concrete notes</i>				
	<u>Grade 25 (20) cement concrete</u>				
5F1	In column shafts.	m ³	8		
5F2	In roof slab & beams	m ³	26		
5F3	In roof beams	m ³	4		
5F4	225mmx150mm lintols in 1:2:4 (20mm) concrete including formwork and 4 nr 10mm H/Y steel bars and 6mm dia mild steel bars.	m	50		
5F5	In 225x75mm beam at window sill level. Rate to include for form work & reinforcement, 02 Nos 10mm dia. High yield steel reinforcement & 6mm dia. Mild steel stirrup @ 150mm c/c spacing in all floors.	m	40		
	FORMWORK				
5F6	In column shaft	m ²	100		
5F7	In roof slab & beams	m ²	300		
5F8	In roof Beams	m ²	45		
	REINFORCEMENT				
	<u>High Yield steel</u>				
5F9	In column shaft	kg	630		

	Surface should be structurally sound, clean, free from loose particles, oil, grease or any other contaminants as instructed by engineer.	Note			
	Sharp corners are to be filled with screed and water proofing should be laid with overlap as per manufactures specification	Note			
	Before applying water proofing material, saturate the prepared surface with clean water.	Note			
	This membrane should be able to fill hairline cracks with excellent functions of water proofing , wear resistance and weather resistance.	Note			
	The minimum recommended coverage as per manufacture's specification.	Note			
5H1	Application of approved type water proofing agent (Torch on Membrane type) & heat insulation layer (25mm thick insulation layer with non wooven geo- textile polyster matt or equivalent) and 50 mm thick screed concrete with 50x50mm GI mesh over the concrete roof slab As per manufacture's specification.	m ²	110		
	Sub Total of water Proofing Work Carried to Sub Summary of Bill No.05				
	4J- WALL FINISHES				
	<i>Rate shall include to (a) Fair joints</i>				

	(b) Outlets, working over and around obstructions, pipes, and the like into recesses and shaped inserts.				
	<p>(c) Bonding agents where included with the work.</p> <p>(d) Patterned work is deemed to include all extra work involved.</p> <p>(e) Bedding mortars</p> <p>(f) Grouting</p> <p>(g) Working over and polishing</p> <p>(h) Plastic corner beadings</p> <p>(j) Supplying and Fixing</p> <p>Samples shall be forwarded by the contractor for prior approval of the Engineer.</p> <p>If Contractor proposed to use sea sand for the work, Cost for the following test shall be include for the rates of respective work items;</p> <p>1. tested for Chlorine content in each batch of sea sand brought to site.</p> <p>2. tested for Gradation for each batch of sea sand brought to site</p> <p>3. submit Mix design according to the gradation for our approval (sample is selected by Engineer)</p>	<p>Note</p> <p>Note</p>			
4J1	15mm thick, cement sand 1:5 plaster finished semi rough with wood float on brick walls and concrete faces flush with walls on external surfaces including reveals.	m ²	205		
4J2	15mm thick, cement sand 1:5 plaster finished smooth with skim coat or equivalent on walls and concrete surfaces concrete faces flush with walls on internal faces including reveals.	m ²	340		

	<i>d Modulus of rupture to be over 27N/mm2.</i>				
5K1	20mm thick 1:3 cement sand rendering including neat cement floating. (cut polish finish)	m ²	95		
5K2	Supplying & laying 200x100, 80mm thick interlocking paving block finished semi rough. Rate to include for concrete 300mm wide kerb line and laying quarry dust. Compressive strength of the paving blocks~ 30N/mm2	m ²	115		
5K3	100mm high cement skirting.	m	85		
5K4	Supplying, cutting & fixing rubble dressing up to 600mm height in plinth as per detail drawing	m ²	20		
Sub Total of Floor Finishes Carried to Sub Summary of Bill No.05					
	5L - CEILING FINISHES				
	<i>Rate shall include to,</i> <i>(a) Working over and around obstructions</i> <i>(b) Support work and accessories for fittings</i> <i>(c) Suspension and framed members</i>				
	<i>(d) Cutting</i> <i>(e) Additional hangers, framing and the like</i> <i>(f) Supplying and Fixing of materials</i>				
5L1	Preparing & applying two coats skim coat on soffit of slab, soffit and sides of isolated beams. including reveals.	m ²	220		

5L2	Supplying & fixing 19mm thick Lunumidella exposed rafter ceiling. Rate to include for planning lunumidella planks, strain & painting as per the specifications. (Timber frame work measured separately under roof Item)	m ²	160		
Sub Total for Ceiling Finishes Carried Sub Summary of Bill No.05					
	<p>5M- PAINTING</p> <p><i>Rates shall include for,</i> <i>The prices shall include for preparation of surface, cleaning down, use of wall fillers and primary paint coats to obtain neat surface., sand papering etc.</i></p> <p><i>Protection of floors and fittings, removing door and window furniture, and cleaning window etc. upon completion.</i></p> <p><i>Reveal, Column Projections, undersides of lintels and wall ends less than 300mm shall not be measured and shall be incorporated in other measurements. Isolated columns shall be measured for payments.</i></p> <p><i>All weather shield/ floor paints, primer shall be of approved make with non-lead pigment.</i></p> <p><i>Rate to include for the cost for the scaffoldings.</i> <i>Paint shall be from "CIC Dulux" or approved equivalent to the approval of the Architects and Engineer.</i></p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			

5M1	Prepare and apply one primer coat and two coats of weather shield paint of approved colour and quality to external rough plastered face of walls and reveals.	m ²	245		
5M2	Prepare and apply one primer coat and two coats of Emulsion paint of approved colour and quality to internal smooth plastered faces of walls and reveals.	m ²	340		
5M3	Slab soffit and beam painting with one primer coat and two coats of approved quality emulsion paint.	m ²	220		
Sub Total for Painting Carried to Sub Summary of Bill No.05					
5N -DOORS & WINDOWS					
<u>Timber works</u>					
The frames shall be wrought, framed and fixed in position as specified in drawings. The scantling specified timber, shall planed smooth and accurate to dimension shown in drawings. Rebates, roundings and mouldings shall be made before assembly patching or plugging of any kind not be permitted except as specified.		Note			
Timber Frames shall be 100x50mm (nominal sizes)		Note			
Timber sashes shall be 28mm (finished thickness)		Note			
Door frames <u>treated Kempus/ Teak</u> & sashes shall be <u>Teak</u> or approved equivalent (Class 1 timber)		Note			

	<p>All doors, window frames (Copper - Cromium- Boron (CCB) Treated) & sashes to stain & water based paint.</p> <p>All the material samples shall be approved by the Architect or Engineer before fabrication.</p> <p>Glass thickness shall be 6mm thick clear glass.</p> <p>All the rates shall be include for all necessary approved heavy quality locks (Union/ Yale or equivalent), iron mongery (Brass oxidized / Brass/Stainless steel.)</p>	<p>Note</p> <p>Note</p> <p>Note</p> <p>Note</p>			
	<p>All the rates shall be include for all necessary approved heavy quality locks (Union/ Yale or equivalent), iron mongery (Brass oxidized / Brass/Stainless steel.)</p> <p><u>Alumimium works</u></p> <p><i>Aluminium extrusion should be manufactured under the certification of ISO 9001:2008</i></p> <p><i>The work shall include supply, fabricate and installation of doors, windows out of Aluminium Sections. All extrusion shall be of AlMgSi Alloy designation 6060 or 6063 with powder coated surface finish coating thickness 60-80 microns as per the respective drawings and specifications .</i></p> <p><i>Refer Architectural drawing.</i></p>	<p>Note</p> <p>Note</p> <p>Note</p>			

5N1	Supplying and fixing door type D1 , size 1200x2700mm timber framed glazed door with timber louver panel bottom and fixed glass on top with a door closer and frosted sticker pasted. Rate to include for all necessary fittings to working order and painting.(04 Nrs)	m ²	12.96		
5N2	Supplying and fixing door type D2 , size 900x2700mm timber framed timber door with a fixed glass on top. Rate to include for all necessary fittings to working order and painting.(02 Nrs)	m ²	4.86		
5N3	Supplying and fixing door type D5 , size 900x2100mm powder coated aluminium framed aluminium <u>tempered glass</u> door with a door closer. Rate to include for all necessary fittings to working order and painting.(02Nrs)	m ²	3.78		
5N4	Supplying and fixing door type DW , size 2225x2700mm powder coated aluminium framed aluminium <u>tempered glass</u> door with a door closer. Rate to include for all necessary fittings to working order and painting.(02Nrs)	m ²	12.02		
5N5	Supplying and fixing window type W3 , size 1200x1500mm timber framed glazed window with fixed glass. Rate to include for all necessary fittings to working order and painting.(04 Nr)	m ²	7.2		
5N6	Supplying and fixing window type W4 , size 1800x2700mm timber framed glazed window with fixed glass. Rate to include for all	m ²	19.44		

	necessary fittings to working order and painting.(04 Nr)				
5N7	Supplying and fixing type FG1 , size 1500x1800mm timber framed <u>tempered</u> fixed glass. (02Nr)	m ²	5.40		
5N8	Supplying and fixing type L1 , size 3775x600mm timber framed timber louver. (06Nr)	m ²	13.60		
5N9	Supplying and fixing type L4 , size 4775x600mm timber framed timber louver. (04Nr)	m ²	11.46		
5N10	Supplying and fixing type P1 , size 1500x2100mm timber framed vineer board partition.(02Nrs)	m ²	6.30		
Sub Total for Aluminium Doors & Windows Carried Sub Summary of Bill No.05					
	5P - ROOF COVERING & ROOF PLUMBING - 1)All timber used for roof frame work, beams, pergolas, columns shall be pressure impregnated "Kempus" or treated with other method approved by the Engineer. The pressure impregnation should be done locally, after selecting the timber for the works; by an approved timber treating organization and a certificate of CCB (Copper Chrome Borax) treatment and the guarantee shall be submitted by the Contractor before installation. 2) All timber members in roof frame, beams, pergolas, ceiling, columns & valance board shall be planed and equally sized.				

	3) The cross sectional dimensions of all timber members for roof frame ,beams, pergolas, ceiling & valance board given below are finished dimensions.				
	<p>4) All surfaces of timber members shall be applied with two coats of sanding sealer and two coats of water based paint matt finish of approved colour.</p> <p>5) Rates for items under '4P - Roofer' below shall be inclusive of costs for treating, stain & painting of timber as specified, planning, cutting, jointing, hoisting, placing in position, wastages of materials, supplying of all fixtures and accessories such as nails, nuts & bolts, washers, plates where necessary.</p> <p><u>Roof Timber</u></p>				
5P1	Supplying and fixing of 100x50mm (4"x2") size CCB treated Kempus timber rafter.	m	450		
5P2	Supplying and fixing of 100x75mm (4"x3") size CCB treated Kempus timber for wall plate.	m	70		
5P3	Supplying and fixing of 175x50mm size CCB treated Kempus timber for ridge plate & Hip rafter.	m	60		
5P4	Supplying and fixing of 50x25mm (2"x1") size CCB treated Kempus timber reepers.	m	700		
	<u>Roof Covering</u>				

5P5	Supplying & laying pressed cement roofing tiles of approved colour ("Colourcon" or equivalent quality approved by the Engineer) on timber framework. The cost of timber framework is paid separately. Rate shall be inclusive of supplying & placing of ridge tiles, hip covering, ridge starter, 3way Apex bedded with 1:3 cement sand mortar and coloured to match tiles where necessary, nailing. Approximate cross sectional dimensions and weight of a tile to be 333mm x 425mm + or - 4mm and 4.9 kg + or - 5% respectively.	m ²	160		
5P6	Supplying & laying 0.35mm TCT non colour plain Zn/Al sheet above the aluminium foil.	m ²	160		
5P7	Supplying & fixing 225mm, 25mm thick Kempus valance & Barge board. Rate to include for one coat of primer & two coats of enamel paint.	m	80		
5P8	<u>Roof Plumber</u> - Supplying & fixing AZ 150, 0.47mm TCT Zn/Al down pipes of size 100x100mm. Rate to include for brackets, brass screw, wooden plugs etc.	m	70		
5P9	Supplying & fixing AZ 150, 0.47mm TCT Zn/Al eave gutters of girth 470mm. Rate to include for necessary brackets.	m	80		
	<i>Sub Total for Roof Covering & Roof Plumbing Carried to Sub Summary of Bill No.05</i>				
	5Q - MISCELLANEOUS				

5Q1	Construction of 750mm wide 75mm thick C15 (25mm) concrete pavement finished with 12mm thick 1:3 cement sand rendering.	m	41		
5Q2	Supplying, fabricatiing & fixing steel framed steel gates size 4.4x 2.5m as <u>per architectural drawing</u> . Rate to include for one coat of anti-corrosive primer and two coats of epoxy paint (01 nos) and all necessary accessories.	nr	1		
5Q3	Supplying, fabricating & fixing steel framed steel gates size 1.5x 2.5m as <u>per architectural drawing</u> . Rate to include for one coat of anticorrosive primer and two coats of epoxy paint and all necessary accessories and all necessary accessories.	nr	2		
Sub Total for Miscellaneous Carried to Sub Summary of Bill No.05					
I	<u>5R- ELECTRICAL WORKS</u> Rates in Bill of Quantities shall include all necessary materials (Cables, conduits, PVC sunk box, bulbs, switches etc.) and labour required to complete the electrical installation to good working order. -				
II	Except where specifically stated, all costs associated with provision of all holes, openings, chases, ducts and other builders' work required for installation and make them good, shall be included in the rates.				

III	Where reference is made to certain manufactures' products and items identified by registered trademarks, has been done for the sole purpose of defining and establishing standards of quality and performance and not with the intention of restricting the procurement of material or fitting to a particular manufacturer. However all equipment and material should meet the BS or an equivalent standard.				
IV	- Testing and commissioning of the electrical installation is to be carried out by the contractor and inspection report submitted according to the requirements of the power supply Authority.				
V	- Electrical Items (MCB, RCCB etc.) should be of European/Japanese origin or to the BS or equivalent and items without an accredited agent in Sri Lanka shall not be accepted. Guarantee cards(Fans etc.) should be provided from accredited agent before installation.				
VI	- All the quantities given here are approximated values and Quantities may change with the actual installation at the site.				
VII	- All types of fittings, materials, painting and finishes shall be approved by the Engineer prior to installation.				
VIII	- All panel boards and consumer units should have wire numbering and a laminated circuit diagram should be pasted on the inside surface of the door.				
	-				

	<p>Note:- <u>Recommended Brands for Electrical Items</u></p>				
A	<p>- <u>Protective items (MCCBs, MCBs, RCCBs & ISOs</u> Schneider, ABB,Hager,Eaton (Moeller) ,Terasaki or Eq.</p>				
B	<p>- <u>Surge protective Device (SPDs)</u> obo- bettermann,j.propster,Schneider or Eq.</p>				
C	<p>- <u>Fans</u> KDK Original or brands approved by the Engineer.</p>				
D	<p>- <u>Electrical Switches & Socket Outlets</u> Orange,ACL,Clipsal(schneider) or Eq.</p>				
E	<p>- <u>Light Fittings</u> Japanes, malayasian made or brands approved by the Engineer.</p>				
F	<p>- <u>Bulbs (CFL,halogen bulb,sodium vapour lamp)</u> Philips,Osram or Eq.</p>				
G	<p>- <u>Cables</u> Kelani,Sierra,ACL or Eq.</p>				
H	<p>- <u>Polycarbonate made enclosure</u> Polychrome or brands approved by the Engineer.</p>				
I	<p>- <u>PVC Trunking</u> KTK or brands approved by the Engineer.</p> <p>- <u>Electrical Distribution System</u></p>				

5R1	Associated work for the getting CEB Electricity connection - Client pay for the connections.(06 Nos of 30A Single phase Connections.)	PS	Item		75,000.00
5R2	<p><u>Single Phase Consumer Units (LCU-COM)</u></p> <p>Supply and installation of switch gear cubicle made out of (1.5mm thickness) sheet steel (IP65) stove enameled or powder coated for the finish with one coat of primer to the approval of the engineer with following equipment.(Sunk type)</p> <p>01 No 40A,2P,6kA MCB 03 No 20A,2P,6kA MCB 01 No RCCB, 40A, 30mA, 2P 12 Nos MCBs, 1P (6A-32A)-6kA All internal connections Earth Bar Equipment to be to the BS/IEC</p>	Nos	1		
5R3	<p><u>Single Phase Consumer Units</u></p> <p><u>Single Phase Consumer Units (for Counters)</u></p> <p>Supply and installation of wall mounted switch gear cubicle made out of polycarbonate sunk type enclosure to the approval of the engineer with equipment as specified in each board.Additional space to be provided inside the distribution board enclosure to install two additional breakers (of capacity with existing max.Outgoing breaker) if necessary.</p> <p>01 No 40A,2P Isolator 01 No RCCB, 40A, 30mA, 2P 06 Nos MCBs, 1P (6A-32A)-6kA 12 way Polycarbonate made enclosure (sunk type) All internal connections</p>				

5R4	<p>Earth Bar</p> <p>Equipment to be to the BS/IEC</p> <p>In Gate 02 (Left wing) (LCU-1 to LCU-6)</p>	Nos	6		
	<p><u>Single Phase Consumer Unit (SCU)</u></p> <p>Supply and installation of switch gear cubicle made out of (1.5mm thickness) sheet steel (IP65) stove enameled or powder coated for the finish with one coat of primer to the approval of the engineer with following equipment.(sunk type)</p> <p>01 No 40A,2P Isolator 01 No RCCB, 40A, 30mA, 2P 04 Nos MCBs, 1P (6A-32A)-6kA 12 way Steel enclosure (sunk type) All internal connections Earth Bar</p> <p>Equipment to be to the BS/IEC</p>	No	1		
	<p><u>Main Earth Bus Bar Box</u></p> <p>Supply & installation of 02 Nos. of 25mm (W) x 200mm (L) x 2mm (t) Cu Earth Bars (including 04 numbers of holes for each earth bars) with powder coated steel enclosure (300mm H x 300mm W x 150mm D) ,with accessories .</p>	No	1		
5R6	<p><u>CEB Bus Bar Box</u></p> <p>Supply & installation of 04 Nos. of 25mm (W) x 300mm (L) x 2mm (t) 100A Cu busbars (including 04 numbers of holes for each busbars) with powder coated steel enclosure (450mm H x 450mm W x 150mm D) ,with accessories .</p>	No	1		

5R7	<p><u>CEB Meter Box</u></p> <p>Supply and installation of switch gear cubicle made out of (1.5mm thickness) sheet steel (IP54) stove enameled or powder coated for the finish with one coat of primer with lockable glass door to the approval of the engineer with accessories. (1200mm H x 800mm W x 500mm D)</p> <p><u>Cables</u></p> <p>Supply and installation (with all materials required including conduits and termination) of following cables.</p>	No	1		
5R8	<p>10mm², 2C Cu/PVC/SWA/PVC Cables wire From Existing CEB connection to LCU-COM (including civil work)</p> <p>25mm² Cu/PVC Earth cables</p>	m	40		
5R9	<p>from Main Earth Bus Bar to Main Earth Electrode.</p> <p>6mm², 2C, Cu/PVC/PVC + 6mm² Green & Yellow Earth cable</p>	m	10		
5R10	from CEB Meter (M1 to M-6) to (LCU-1 to LCU-6)	m	100		
5R11	from LCU-COM to SCU	m	20		
	<p><u>Light Fittings</u></p> <p>Note :-</p> <p>All LED bulb should be replaceable type without changing the light fittings & warranty of all LED bulbs must be minimum two years.</p>				
5R12	Supply and installation of Sunk/Surface type White, 4" 6W LED panel light fitting with accessories.	Nos	15		

5R13	Supply and installation of Sunk/Surface type White, 6" 12W LED panel light fitting with accessories.	Nos	2		
5R14	Supply and installation of Decorative pendent light fitting with 12W LED bulb, with accessories.	Nos	18		
5R15	Supply and installation of Outdoor type(IP65) Wall Bracket light fittings with 9W LED bulb inside, with accessories.	Nos	10		
5R16	Supply and installation of Outdoor type rectangular LED (IP65) Niche light fitting of 6W , with accessories.	Nos	8		
5R17	<u>Light Point Wiring</u> Wiring (including supply of all materials) of the above light points using approved type PVC insulated PVC sheathed 1 mm ² copper cable drawn through securely fixed concealed PVC conduit with 2.5 mm ² earth cable.	Nos	45		
5R18	<u>Niche Point Wiring</u> 2.5mm ² 2 Core Cu/SWA/PVC cables from SCU to Outdoor Lights.(including civil work)	m	40		
5R19	<u>Fans</u> <u>Ceiling Fans</u> Supply & installation of 1400mm (56") , 80W sweep ceiling fan, complete with regulator, fan hook, extension rod & attachment.	Nos	4		
5R20	<u>Ceiling Fan point wiring</u>				

5R21	Wiring (including supply of all material, earth wire & switch) of the above ceiling fans using approved type 1 mm ² , Cu/PVC/PVC cable & 2.5 mm ² earth wire drawn through securely fixed concealed PVC conduits.	Nos	4		
	<u>Socket Outlets</u> <u>13A Socket outlets</u> Supply & installation of 13A shuttered switched single socket outlet to comply with BS.	Nos	16		
5R22	<u>Wiring of 13A Socket outlets (radial circuit)</u> Wiring (including supply of all material required) of 13A socket outlets using approved type 2.5mm ² Cu/PVC/PVC, 2C cable & 2.5mm ² earth cable drawn through securely fixed concealed PVC conduit.	Nos	16		
5R23	<u>Main Earthing System</u> Supply and Installation of an earth electrode of minimum 16mm dia. copper Bonded rod of length 1.2m or more with a clamp connection to earth conductor. Earth resistance shall be less than 10 Ohms tested on a dry day. An earth pit of size 300mm x 300mm x 300mm is to be prepared and covered by concrete plate to protect the earth electrode.	Item		Allow	
5R24	<u>Inspection and Testing - Electrical installation</u> Testing the installation and rectify any defects and submit a certificate by a Chartered Electrical Engineer.	Item		Allow	
	<u>Telephone Network</u>				

5R25	<u>Telephone Junction Boxes (TJBs)</u> Supply and Installation of telephone junction box with 10 pair crone sets.	No	1		
5R26	<u>Telephone Socket Outlets</u> Supply and installation of RJ(11) single, shuttered, sunken wall mounted telephone socket outlet with modular insert and face plate comprising all other accessories required complying with relevant BS/IEC standards.	Nos	10		
5R27	<u>Wiring of Telephone Socket Outlets</u> Wiring up to the telephone socket outlets from the respective floor junction box using approved type 2 (0.5×4 mm ²) pair UTP (Unshielded Twisted Pair) telephone cable drawn through securely fixed concealed PVC conduits comprising all other accessories required.	Nos	10		
5R28	<u>Testing & Commissioning- Telephone Network</u> Testing the installation and rectify any defects and submit a certificate with as built drawing of Telephone Network.	Item		Allow	
<i>Sub Total for Miscellaneous Carried to Sub Summary of Bill No.05</i>					

DAY WORKS SCHEDULES

SCHEDULE 1- MATERIALS

The Bidder shall give in this schedule the basic price of the following materials

	Material Description	Unit	Basic Price
			Rs. Cts.
1	Cement	1 Bag (50kg)	.....
2	Reinforcement		
	Mild steel	ton	.....
	High Yield Steel	ton	.....
3	Metal		
	20 mm	Cum	.....
	40 mm	Cum	.....
4	Bricks	1000 Nos.	.....
5	Rubble (150mm-225mm)	Cum	.....
6	Sand	Cum	.....
7	Asbestos Sheets	Sq .m	.....
8	Paint		
	Weather shield	4 Lt.	.....
	Emulsion	4 Lt.	.....

Add: Overhead & Profits % to above



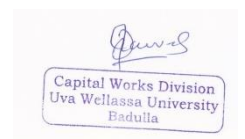
DAY WORKS SCHEDULE

SCHEDULE 2 - PLANT

Any Plant engaged on Day works shall be paid at the rates given below. The rates are for wet hire. These rates shall include for all inputs for running of the plant, transport to site, operators, attendants, insurance and other overheads associated with such plant.

	Description of Plant	Hourly Rate
		Rs. Cts.
1	Farm Tractor with Trailer	.....
2	Backhoe Loader	.....
3	Excavator (0.5 m ³)	.....
4	Concrete Mixer (10/7 Cu. ft.)	.....
5	Poker Vibrator including Prime Mover	.....
6	Lorry/Tipper (10 Ton )	.....
7	Welding Plant	.....

Add: Overhead & Profits % to above



SECTION - 8

❖ *DRAWINGS*

DEVELOPMENT OF MAIN ENTRANCE OF UVA WELLASSA UNIVERSITY LIST OF DRAWINGS

ARCHITECTURAL DRAWINGS

Drawing No	Title	Ten. Issue	Rev A	Rev B
C 1392/CSD/AR-01a	Master Plan	Aug-2018		
C 1392/CSD/AR-01	Layout Plan (Gate 01)	Aug-2018		
C 1392/CSD/AR-02	Ground Floor Plan (Gate 01)	Aug-2018		
C 1392/CSD/AR-03	Elevation & Section XX (Gate 01)	Aug-2018		
C 1392/CSD/AR-04	Changing Room Details	Aug-2018		
C 1392/CSD/AR-05	Detail of Openings (Gate 01)	Aug-2018		
C 1392/CSD/AR-06	Detail of Openings (Gate 01)	Aug-2018		
C 1392/CSD/AR-07	Layout Plan (Gate 02)	Aug-2018		
C 1392/CSD/AR-08	Ground Floor Plan (Gate 02- Right Wing)	Aug-2018		
C 1392/CSD/AR-09	Front Elevation, Section X-X, Schedule of Opening and Schedule of Finishes (Gate 02- Left Wing)	Aug-2018		
C 1392/CSD/AR-10	Detail of Openings (Gate 02)	Aug-2018		
C 1392/CSD/AR-11	Detail of Openings (Gate 02)	Aug-2018		

SECTION - 9

❖ *STANDARD FORMS (BID)*

FORM OF BID SECURITY

[this Guarantee form shall be filled in accordance with the instructions indicated in brackets]
----- [insert issuing agency's name, and address of
issuing branch or office]

Beneficiary: *The Vice Chancellor, Uva Wellassa University, Badulla*

Date: ----- [insert (by issuing agency) date]

BID GUARANTEE No.: ----- [insert (by issuing agency) number]

We have been informed that -----
[insert (by issuing agency) name of the Bidder] (hereinafter called "the Bidder") has submitted to you its bid dated -----[insert (by issuing agency) date] (hereinafter called "the Bid") for the **Development of Main Entrance of Uva Wellassa University** [insert name of Contract] under Invitation for Bids No. ----- [insert IFB number] ("the IFB").

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we ----- [insert name of issuing agency] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ----- [insert amount in figures] -----
----- [insert amount in words] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This Guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signed by the Bidder and of the Performance Security issued to you by the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) the successful bidder furnishing the performance security, otherwise it will remain in force up to ----- (insert date)

Consequently, any demand for payment under this Guarantee must be received by us at the office on or before that date.

[signature(s) of authorized representative(s)]

CHECK LIST FOR BIDDERS

CHECK LIST FOR BIDDERS

Bidders are advised to fill the following table.

ITEM	ITB Clause	YES (tick)	REFERENCE
Form of Bid			
Addressed to the Employer ?	18		
Completed?	18		
Signed?	18		
Bid Securing Declaration Form (if required)			
Properly filled and signed	16		
Bid Security (if required)			
Address to the Employer ?	16		
Format as required?	16		
Issuing Agency as specified?	16		
Amount as requested?	16		
Validity 28 days beyond the validity of Bid?	16		
Qualification Information			
All relevant information completed?	4		
Signed?	4		
Addendum			
Contents of the addendum (if any) taken in to account?	10		
Bid package			
All the documents given in ITB Clause 12 enclosed in the original and copy?	12		
ITB Clause 19 followed before sealing the Bid package?	19		